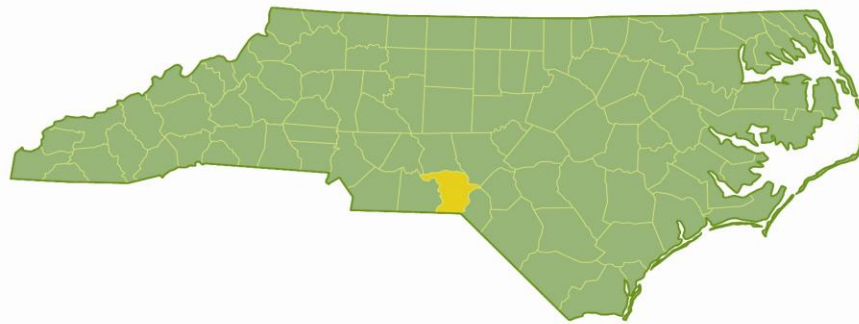


Community Health Assessment Richmond County December 2013



**Richmond County Health Department
Richmond County Healthy Carolinians Partnership
FirstHealth Richmond Memorial Hospital**

Dr. Tommy Jarrell, Health Director
Richmond County Health Department



www.firsthealth.org www.richmondnc.com

FirstHealth
RICHMOND MEMORIAL HOSPITAL

A Division of FirstHealth Moore Regional Hospital

764-174-13

Acknowledgments

Richmond County Health Department (RCHD), FirstHealth of the Carolina: Richmond Memorial Hospital, and Richmond County Healthy Carolinians would like to thank all the individuals and businesses that assisted with the compiling of data for the 2013 Community Health Assessment.

Richmond County Public Schools

FirstHealth Of The Carolinas- Richmond Memorial Hospital

United Way

Richmond County Health Department

Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill

North Carolina Institute for Public Health, Gillings School of Global Public Health, University of North Carolina at Chapel Hill

Richmond County Emergency Services

North Carolina Corporative Extension Service

First-in-Health Richmond 2020 Task Force

Sandhills Regional Medical Center

Richmond County Healthy Carolinians

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Community Health Assessment Team

A Community Health Assessment (CHA) is a process by which community members gain an understanding of the health, health concerns, and healthcare systems of the community by identifying, collecting, analyzing, and disseminating information on community assets, strengths, resources, and needs. A community health assessment usually culminates in a document that includes information about the health of the community's capacity to improve the lives of residents. A community health assessment can provide the basis for discussion and action to improve the health of a community.

Source: Community Health Assessment Book Guide Appendices

The Richmond County Community Assessment Team consisted of Project Facilitator, Co- Facilitators, a Community Health Survey Team, Data Collection and Analysis Team, and an Advisory Group. The Facilitator began CHA meetings in Fall 2012. In the initial meeting a review and re-evaluation of the 2009 CHA process was conducted. The CHA Team was formed and subcommittees were established in January 2013. The Community Health Assessment Team collected the Primary data, while the Data Collection and Analysis Team collected the Secondary data. The Co- Facilitator analyzed and interpreted all other data that was gathered, determined health priorities and formulated the Richmond County 2013 Community Health Assessment.

-Project Facilitator: Tommy Jarrell (Health Director)

-Co-Facilitators: Phyllis Carriker (Previous Healthy Carolinians Coordinator) and Shareese Powell (Public Health Educator for RCHD)

-Community Health Assessment Team: Ed Cushman (Environmental Health Specialist for RCHD) , Emma Ellerbe (General Public member of the Richmond County Board of Health), Kalindra Ellerbe(Computer System Administrator for RCHD), Amy Forester (Hospital representative for First Health Richmond Memorial), Holly Haire (Environmental Health Supervisor for RCHD), Rachel Lampley (Nursing Supervisor for RCHD), Sarah Mammarella (Clinic representative with North Carolina Corporative Extension Service), Saquana Miller-Stevenson (WIC Director for RCHD), Paulette Moore (Regional CTG Coordinator for RCHD), Evonne Moore (General Public member of the Richmond County Board of Health), Denise Purvis (Billing and Data entry clerk for RCHD), Martha Richardson (Program Assistant- Health Education for RCHD), Sandy Riffin (Educator for Richmond County Schools), Bob Smith (Community Partner for Richmond County Emergency Services), Linda Smith (Social Work Supervisor for RCHD), Cheryl Speight (PHN for RCHD), Donna Wright (Community Partner for Richmond County Emergency Services), Volunteers (Concerned Community members of Richmond County Work First)

- Data Collection and Analysis Team: Philip Hanson (MPH Candidate, May 2014, Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill), Matthew Simon (MA, GISP Research Associate for North Carolina Institute for Public Health, Gillings School of Global Public Health, University of North Carolina at Chapel Hill), Shareese Powell (Public Health Educator for RCHD), Holly Haire (Environmental Health Supervisor for RCHD), Traci Stevens (Environmental Health Specialist for RCHD), Claudia Stanley (Nurse for Richmond County Schools), Michelle Weatherly (Educator for Richmond County Schools), Deann Anderson (Healthy Kids Project Coordinator for RCHD), Alana McRae (Richmond County Emergency Services), Mark Pankey (Animal Control Extension for RCHD), and Michelle Parrish (Community partner from United Way of Richmond County).

- Advisory Group: First-in-Health Richmond 2020 Task Force and Firsthealth of the Carolinas hospital representative

A Brief History of Richmond County

Present-day Richmond County was first settled by Native Americans living along the Pee Dee River. Richmond was part of Anson County, which was formed in 1750 from Bladen County. The General Assembly formed Richmond County from Anson in October 1779. The citizens cited the hardship in crossing the Pee Dee River to go to the courthouse in Anson County as their reason for wanting a separate county with the dividing line of the Pee Dee River.

Richmond County was named for Charles Lennox, the third Duke of Richmond, who criticized the policy of the British toward the American colonies. The county seat was known as Richmond Courthouse. Scotland County was formed from Richmond in 1899.

The first court session in the new county was held in December 1779 at the old Presbyterian Meeting House in the Zion Community. Around 1783, after raising money from taxes to pay for buying land and laying out a town, a new courthouse was built in what is today downtown Rockingham. In 1784, the name of the town was changed to Rockingham in honor of Charles Watson-Wentworth, second Marquis of Rockingham and supporter of American independence.

Dockery Meeting House (which was the forerunner of Cartledge Creek Baptist Church) was chartered in 1774, Mt. Pleasant Methodist in 1780, First Methodist Church of Rockingham in 1786, Concord Methodist Church in 1787, and Zion Methodist Church in 1829. There was a Presbyterian Meeting House in Rockingham around 1788.

The county grew slowly as many families moved down from Maryland, Virginia, and up from South Carolina. The Dockery Brick House, built in 1830, and the Leak-Wall House, built in 1854, are both still standing.

The county began to grow more as the economy diversified from agriculture to cotton mills. The Richmond Mill was chartered in 1833 and was the seventh cotton mill chartered in North Carolina. It operated until 1865 when it was burned by Sherman's troops. It was rebuilt in 1869 and renamed Great Falls Mill. It burned again in 1972, and the ruins are still standing. Other cotton mills sprang up in the county.

The first railroad line through Richmond County was begun in 1861, but stopped for the Civil War and then resumed in 1869. In 1872 a woolen mill was built, and the town around it was named Hamlet. The owner of the mill deeded land to the railroad. The first train to reach Hamlet was the Raleigh and Augusta Air Line on August 10, 1877. The Hamlet Railroad Depot was built in 1900 and is still standing today housing a railroad museum. The town of Hamlet grew and became a railroad center.

A Brief History of Richmond County continued

The Hamlet Opera House was built around 1912 and was almost identical to the Bijou Theatre in Wilmington. The area became known for its culture. Today the building is on the National Register of Historic Places.

The town of Ellerbe began as people came to the area for the mineral springs. A church, school, and post office were established and all went by the name of Ellerbe Springs, which was later shortened to Ellerbe. The hotel was built in 1906 and is still standing today -- Ellerbe Springs Bed and Breakfast.

The county is comprised of 474 square miles and is 350 feet above sea level. Richmond County is the state's 38th largest geographical county. The county's average temperature is 44 degrees Fahrenheit in the winter and 79 degrees Fahrenheit in the summer. The average annual rainfall total is 47 inches and the average annual snowfall is 3 inches.



The Hamlet Opera House, 1912

Geographic Information

Richmond County is in the heartland of the Carolinas, 70 miles east of Charlotte and 90 miles southwest of Raleigh-Durham.

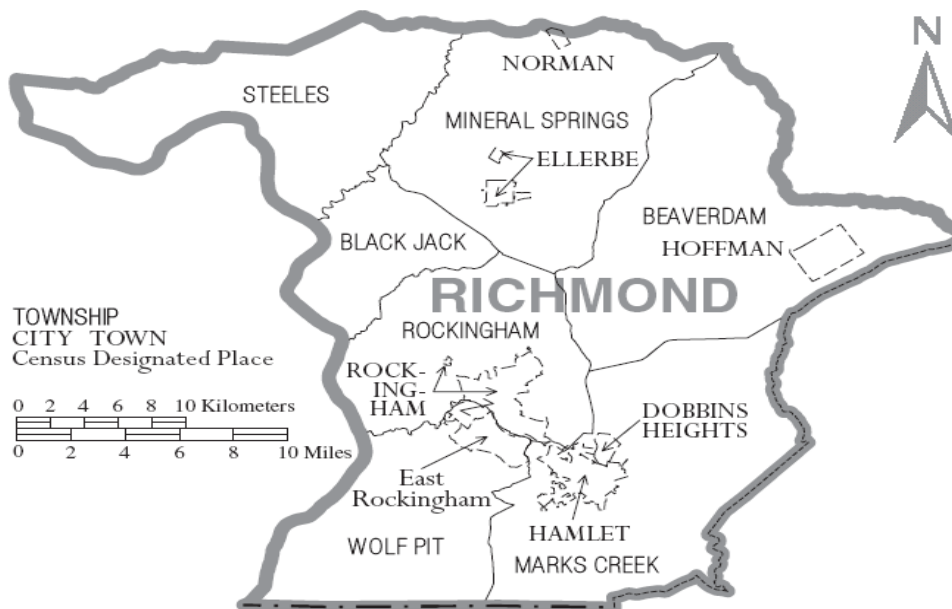
Richmond County is bounded on the north by Montgomery County, northeast by Moore County, southeast by Scotland County, south by Marlboro County, South Carolina, and west by Anson County.

There are seven townships in Richmond County and eight cities and towns including Dobbins Heights, East Rockingham, Ellerbe, Hamlet, Hoffman, Norman, Cordova, and Rockingham. Rockingham, which is the most populated township, is also the county seat.

The nearest Interstate Highway is I-73 and I-74 that runs east-to-west through the county. US Highway 220, 74 business, 74 bypass, and #1 all run through Richmond County. State highways in Richmond County are 38, 73, 381, and 177.

The nearest airport offering commercial service is Pinehurst (25 miles). Highway 74 provides access to the Charlotte/Douglas International Airport located 85 miles to the west and Raleigh/Durham Airport located 100 miles to the northeast. Hamlet is the closest stop on any passenger railway system and the nearest Greyhound Lines stop is Rockingham.

Richmond County is comprised of 480 square miles (474 land and 6 water) making it the state's 38th largest geographical county.



Richmond County - Facts and Figures

Demographic Information

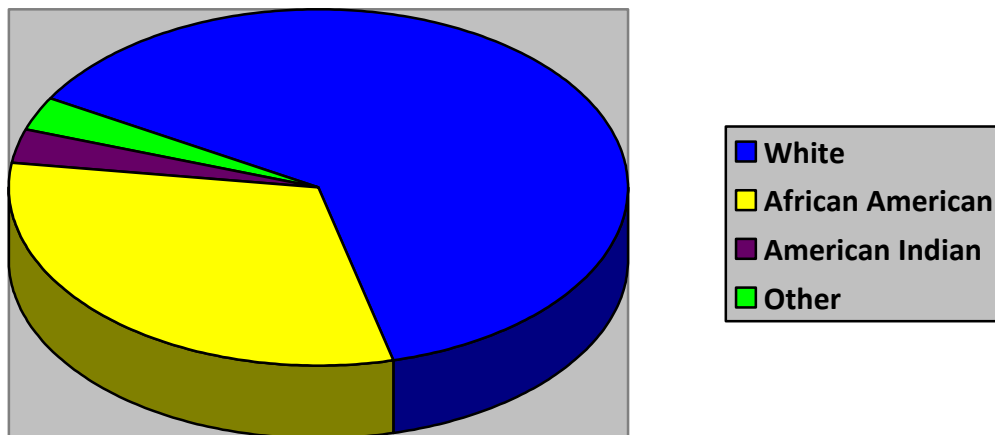
According to the 2012 population estimates, there were 46,627 people living in Richmond County. The racial make up of the county was 29,278 White, 14,523 Black or African American, 1,391 American Indian, and 1,435 other races. (Peer Counties: Anson, Bladen, Montgomery, Pasquotank, Scotland, and Vance)

Indicator Raw Values			
Year	Richmond	Peer Avg*	State
2008	46,028	34,762	9,247,134
2009	45,970	34,745	9,380,884
2010	46,639	35,362	9,535,483
2011	46,611	35,218	9,656,401
2012	46,627	35,125	9,752,073

*Avg- Average

Source: (North carolina population), (U.S. Census Bureau, Population Division)

2012 Race Value Graph



Race	Value	Percentage
White	29,278	63%
African American	14,523	31%
American Indian	1,391	3%
Other	1,435	3%

Source: (Data)

Richmond County - Facts and Figures

Demographic Information continued

Indicator Raw Values

Population Estimate for age < 1			
Year	County	Peer Avg	State
2008	1,396	1,022	268,374
2009	1,348	974	266,566
2010	1,200	879	248,408
2011	1,202	855	246,519

Population Estimate for age 1 - 4			
Year	County	Peer Avg	State
2008	2,539	1,977	522,252
2009	2,661	1,984	532,562
2010	2,514	1,853	508,704
2011	2,443	1,804	507,808

Population Estimate for age 5 - 9			
Year	County	Peer Avg	State
2008	2,997	2,354	628,972
2009	2,989	2,342	641,191
2010	3,021	2,286	635,945
2011	2,984	2,233	636,990

Population Estimate for age 10 - 14			
Year	County	Peer Avg	State
2008	3,218	1,889	595,556
2009	3,112	1,874	601,152
2010	3,281	2,338	631,104
2011	3,336	2,342	642,572

Population Estimate for age 15 - 19			
Year	County	Peer Avg	State
2008	3,640	2,499	642,303
2009	3,563	2,470	645,512
2010	3,334	2,572	659,591
2011	3,265	2,480	653,621

Population Estimate for age 20 - 24			
Year	County	Peer Avg	State
2008	3,145	2,280	654,153
2009	3,151	2,312	667,603
2010	2,909	2,284	661,573
2011	3,088	2,365	678,381

Population Estimate for age 25 - 34			
Year	County	Peer Avg	State
2008	5,436	4,173	1,222,133
2009	5,351	4,128	1,235,447
2010	5,447	4,186	1,246,593
2011	5,446	4,155	1,262,635

Population Estimate for age 35 - 44			
Year	County	Peer Avg	State
2008	5,968	4,458	1,330,576
2009	5,817	4,350	1,318,226
2010	6,162	4,509	1,327,151
2011	5,940	4,354	1,316,460

Population Estimate for age 45 - 54			
Year	County	Peer Avg	State
2008	6,368	4,973	1,315,430
2009	6,394	4,911	1,334,481
2010	6,598	5,127	1,368,646
2011	6,556	5,020	1,369,699

Population Estimate for age 55 - 64			
Year	County	Peer Avg	State
2008	5,486	4,248	1,044,294
2009	5,686	4,345	1,080,410
2010	6,100	4,681	1,138,761
2011	6,197	4,779	1,187,466

Richmond County - Facts and Figures

Demographic Information continued

Indicator Raw Values

Population Estimate for age 65 - 74			
Year	County	Peer Avg	State
2008	3,447	2,521	628,176
2009	3,449	2,641	653,980
2010	3,777	2,870	697,567
2011	3,870	2,962	726,650

Population Estimate for age 75 - 84			
Year	County	Peer Avg	State
2008	2,284	1,604	387,296
2009	2,264	1,588	389,078
2010	2,143	1,598	389,051
2011	2,129	1,626	398,403

Population Estimate for age 85+			
Year	County	Peer Avg	State
2008	810	588	142,522
2009	843	610	148,967
2010	771	625	147,461
2011	765	635	153,733

Source: (North carolina population)

Households

	Number
Total Households	18,165
Total Population in Households	45,305
Average Household Size	2.49

Source: (2009-2011 American Community Survey)

Median Income	
2011 Median Family Income	\$40,625
2012 Median Household Income	\$27,554

Source: (Geographic Profile)

Estimates of Uninsured, 2008-2011

% Estimate Age 0-64

Indicator Raw Values				Indicator Rate		
Year	County	Peer Avg	State	County	Peer Avg	State
2008-2009	8,421	6,414	1,608,000	21.4%	21.8%	19.7%
2010-2011	8,200	6,167	1,562,000	18.6%	18.3%	16.4%

Source: (Uninsured)

Richmond County – Facts and Figures

Political Information

County Officials

North Carolina Senate	Senator Gene McLaurin
North Carolina House	Representative Ken Goodman
Richmond County Sheriff	James Clemmons, Jr.
Richmond County Register of Deeds	Linda Douglas
Richmond County Attorney	Stephen Futrell
Richmond County Manager	G. Richard Sago, II
Richmond County Clerk of Board	Marian Savage
Richmond County Finance Officer	R. M. Steagall, Jr.

Richmond County Board of Commissioners

Chairman	Kenneth Robinette
Vice Chairman	John Garner
Member	Jimmy Maske
Member	Thad Ussery
Member	Jimmy Capps
Member	Don Bryant
Member	Ben Moss

Mayors

Ellerbe	Lee Berry
Hamlet	Billy Bayless
Hoffman	JoAnn Jasper Thomas
Norman	Kenneth Broadway
Rockingham	Steve Morris
Town of Dobbins Heights	Antonio Blue

Registered Voters

Democrats	19,022
Republicans	5,292
Libertarian	52
Unaffiliated	6,100

- As of June 15, 2013, there were 30,466 registered voters in Richmond County. The majority political party is Democrats with a total of 19,022 voters. Then followed by the Republicans with 5,292 voters, Libertarian with 52 voters, and 6,100 unaffiliated voters. The racial break down consists of 19,148 Whites, 10,078 Blacks, 359 American Indian, and 881 Other. There are 16,512 female voters, and 13,760 male voters.

Source: ("Registered voters," 2013)

Richmond County – Facts and Figures

Richmond County Board of Health

Thad L. Ussery	Board of Health Chair County Commissioner
Paul Smart	Board of Health Vice Chair General Public
Dr. William Cleveland	Dentist
Dr. Melva Bowman	Physician
Dr. Don Covington	Optometrist
Dr. Ralph Souder	Veterinarian
Jon Marks	Pharmacist
Aletha Lanier	Registered Nurse
Evonne Moore	General Public
G. Richard Sago, II	Engineer
Emma Ellerbe	General Public

Richmond County Health Department **Management Team**

Tommy Jarrell, PhD	Health Director
Rachel Lampley, RN	Director of Nursing
Holly Haire	Environmental Health Supervisor
Dorothy Inman	Management Support Supervisor
Saquana Miller-Stevenson	WIC Director
Miki Deese	Accounting/Budget Officer
Dolores Moody	Pharmacy Assistance Program Coordinator
Paulette Moore	Regional CTG Coordinator
Linda Smith	Social Work Supervisor

Richmond County –Facts and Figures



Educational Information 2013-2014 Enrollment Data

Public Schools	Approx #
Cordova School	119
East Rockingham Elementary	622
Ellerbe Middle	201
Fairview Heights Elementary	589
Hamlet Middle	539
L. J. Bell Elementary	570
Leak Street High School	182
Mineral Springs Elementary	503
Monroe Avenue Elementary	428
Richmond County Ninth Grade Academy	553
Richmond Early College	178
Richmond Senior High School	1,446
Richmond Transitional School	200
Rockingham Middle	704
Rohanen Middle	327
Washington Street Elementary	559
West Rockingham Elementary	377

Source: (Public Schools, 2013)

Private Schools	Approx. #
Faith Academy (8-12)	12
Outreach Children's Ministries (PreK-10)	61
Second Baptist Church Day School (PreK-5)	132
Temple Christian School (PreK-12)	103

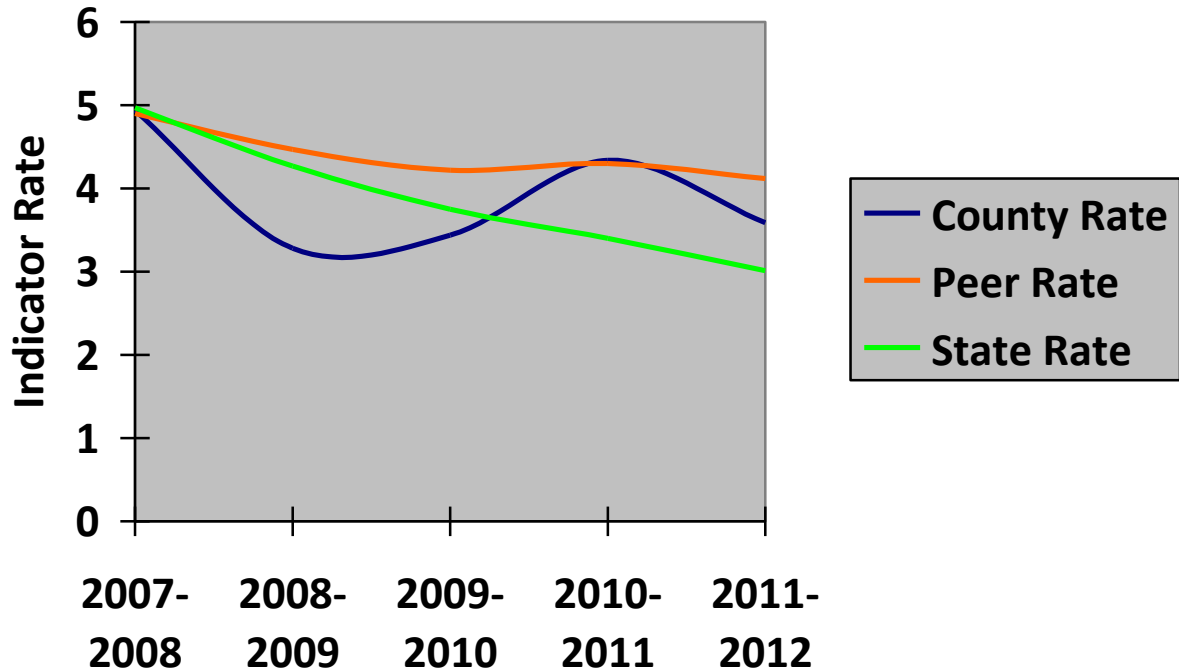
Source: (Private Schools, 2013)

- Richmond County's public education system is made up of 7 elementary schools, 4 middle schools, 5 secondary schools, and a special needs alternative education school (Cordova School). Richmond County schools serve approximately 8,119 students at 17 schools for the municipalities of Dobbins Heights, Ellerbe, Hoffman, Hamlet, Norman, and Rockingham.

Richmond County – Facts and Figures

High School Dropout Rate

Rates Over Time



Year	Indicator Raw Values			Indicator Rate Values		
	County	Peer Avg	State	County	Peer Avg	State
2007-2008	119	89	22,434	4.94	4.9	4.97
2008-2009	79	83	19,184	3.28	4.5	4.27
2009-2010	83	76	16,804	3.44	4.2	3.75
2010-2011	105	76	15,342	4.34	4.3	3.43
2011-2012	88	71	13,488	3.59	4.1	3.01

Source: (Annual Report of)

- According to information published by Public Schools of North Carolina Annual Report of Dropout Rates, the rate of high school dropouts for Grades 9-12 in Richmond County has decreased from approximately 5% to 3% in the past 5 years.

Richmond County – Facts and Figures

SAT Scores for Richmond County and State

Year	% of Students who took SAT		Math SAT Score		Verbal SAT Score		Total SAT Score	
	Richmond	NC	Richmond	NC	Richmond	NC	Richmond	NC
2010	26.8	64.3	471	509	454	495	925	1004
2011	33.5	67.0	452	508	437	493	889	1001
2012	38.5	68.0	446	506	435	491	881	997
2013	36.5	62.0	455	506	451	495	906	1001

Source: ("The north carolina," 2013)

- There has been a significant change in the percentage of students taking the SAT in Richmond County.
- In 2010 about 27% of students took the SAT in Richmond County compared to 37% in 2013.

Public Education Resources

<u>School Name</u>	<u>Address</u>	<u>Telephone</u>
Cordova School	194 Church Street Cordova, NC 28330	910-997-9805
East Rockingham Elementary	154 Chalk Road Rockingham, NC 28379	910-557-0900
Ellerbe Middle School (Grades 6-8)	128 Ballard Street Ellerbe, NC 28338	910-582-7925
Fairview Heights Elementary (Grade PreK-5)	104 Hamilton Street Hamlet, NC 28345	910-582-7900
Hamlet Middle School (Grades 6-8)	1406 McDonald Avenue Hamlet, NC 28345	910-582-7903
L. J. Bell Elementary School (Grades PreK-5)	442 Hawthorne Street Rockingham, NC 28379	910-997-9834
Leak Street High School (Grades 7-12)	1004 Leak Street Rockingham, NC 28379	910-997-9800
Mineral Springs Elementary (Grades PreK-5)	1426 Greenlake Road Ellerbe, NC 28338	910-582-7915
Monroe Avenue Elementary (Grades PreK-5)	400 Monroe Avenue Hamlet, NC 28345	910-582-7907
Richmond County Ninth Grade Academy (Grade 9)	804 County Home Road Hamlet, NC 28345	910-582-7800

Richmond County – Facts and Figures

Public Education Resources continued

Richmond Early College High School (Grades 9-11)	1042 W. Hamlet Avenue Hamlet, NC 28345	910-410-1923
Richmond Senior High School (Grades 10-12)	P. O. Box 1748 North US 1 Highway Rockingham, NC 28380	910-997-9812
Richmond County Transitional School (Grade 9-11)	377 Mizpah Road Rockingham, NC 28379	910-997-9797
Rockingham Middle School (Grades 6-8)	415 Wall Street Rockingham, NC 28379	910-997-9827
Rohanen Middle School (Grades 6-8)	252 School Street Rockingham, NC 28379	910-997-9839
Washington Street School (Grades PreK-5)	566 E. Washington Street Rockingham, NC 28379	910-997-9836
West Rockingham Elementary (Grades PreK-5)	271 W US #74 Hwy Rockingham, NC 28379	910-997-9802
Richmond Community College	1042 W Hamlet Avenue Hamlet, NC 28345	910-410-1700



East Rockingham Elementary School

Richmond County – Facts and Figures

Workforce Information

Employment & Wages by Industry (4th Quarter 2012)

	<u>2012 4th Qtr Employment</u>	<u>2011 Annual Employment</u>	<u>2012 4th Qtr Avg Weekly Wage</u>	<u>2011 Avg Weekly Wage</u>
Total All Industries	13,532	13,438	\$632	\$593
Total Government	2,633	2,542	\$641	\$635
Total Private Industry	10,469	10,481	\$631	\$584
Agriculture Forestry Fishing & Hunting	191	183	\$478	\$497
Mining	101	109	\$1,141	\$954
Utilities	163	165	\$1,574	\$1,511
Construction	474	465	\$812	\$730
Manufacturing	2,778	2,757	\$698	\$651
Wholesale Trade	129	136	\$723	\$709
Retail Trade	1,904	1,904	\$460	\$449
Transportation & Warehousing	186	185	\$666	\$643
Information	135	126	\$888	\$910
Finance and Insurance	232	233	\$707	\$686
Real Estate & Rental & Leasing	97	98	\$415	\$402
Professional & Technical Services	303	306	\$1,154	\$945
Management of Companies, Enterprises	46	47	\$ 495	\$502
Administrative & Waste Services	359	325	\$496	\$449
Educational Services	1,360	1,285	\$611	\$615
Health Care & Social Assist	1,987	2,043	\$758	\$669
Arts, Entertainment & Recreation	79	82	\$232	\$209
Accommodation & Food Services	1,024	1,026	\$237	\$228
Other Services Ex. Public Admin	275	292	\$359	\$350
Public Administration	1,278	1,256	\$662	\$639
Unclassified	0	0	0	0

Source: (Employment & wages)

- There has been an increase in employment from 2008 to 2012.
- 6 of the 22 employment industries did show an increase.

Employment industries with increased employment

Employment Industries	2008 4th Qtr Employment	2012 4th Qtr Employment
Utilities	143	163
Transportation & Warehousing	127	186
Real Estate & Rental & Leasing	89	97
Professional & Technical Services	0	303
Management of Companies, Enterprises	0	46
Administrative & Waste Services	304	359

Source: (Employment & wages)

Richmond County – Facts and Figures

2013 Major Employers

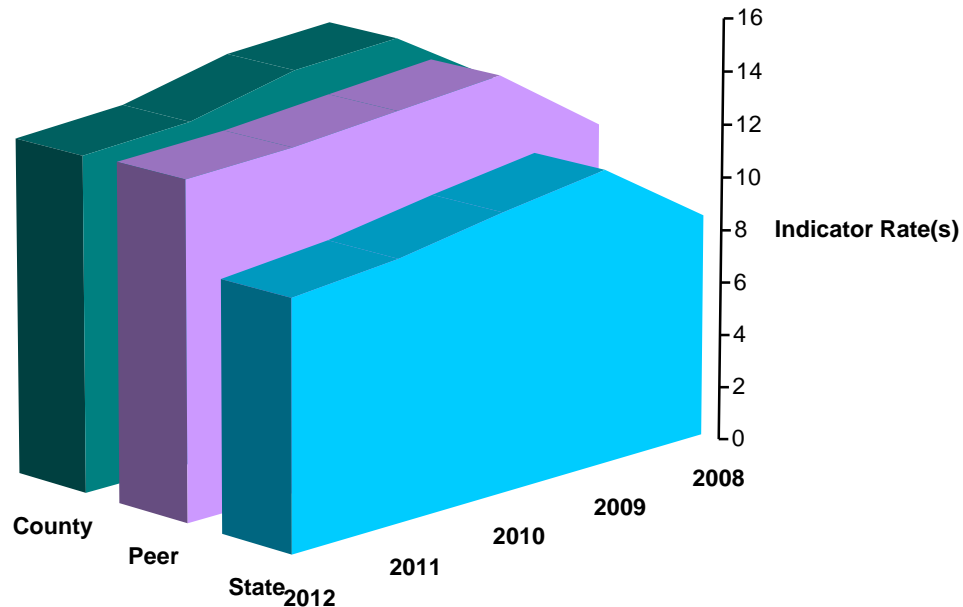
Business	Product/Service	Employee Range
Richmond County Schools	Education	1,000 +
Perdue Products INC.	Manufacturing	500-999
FirstHealth RMH INC.	Education & Health Services	500-999
County of Richmond	Public Administration	250-499
Richmond Technical College	Education & Health Services	250-499
NC Dept of Public Safety	Public Administration	250-499
Burlington Industries V LLC.	Manufacturing	250-499
Plastek Industries V LLC	Manufacturing	250-499
Wal-Mart Associates INC.	Trade, Transportation & Utilities	250-499
Sandhills Regional Medical	Education & Health Services	100-249
K2 Solutions INC.	Professional & Business Services	100-249
Mega Force Staffing Group INC.	Professional & Business Services	100-249
Food Lion	Trade, Transportation & Utilities	100-249
Hood Packaging Corporation	Manufacturing	100-249
Richmond Specialty Yarns LLC.	Manufacturing	100-249
Principle Long Term Care Inc	Professional & Business Services	100-249
Rockingham Manor	Education & Health Services	100-249
Superior Cranes Inc	Construction	100-249
Cascades Holding Us Inc	Manufacturing	100-249
City Of Rockingham	Public Administration	100-249
Lowes Home Centers Inc	Trade, Transportation & Utilities	100-249
City Of Hamlet	Public Administration	100-249

Source: (Top employers)

Richmond County – Facts and Figures

% Unemployment

Rates Over Time



Indicator Rate Values

Year	County	Peer	State
2008	11.7	10.9	8.4
2009	14.2	13.7	11.1
2010	13.9	13.3	10.5
2011	12.9	12.9	9.8
2012	12.6	12.7	9.4

Source: (labor statistics)

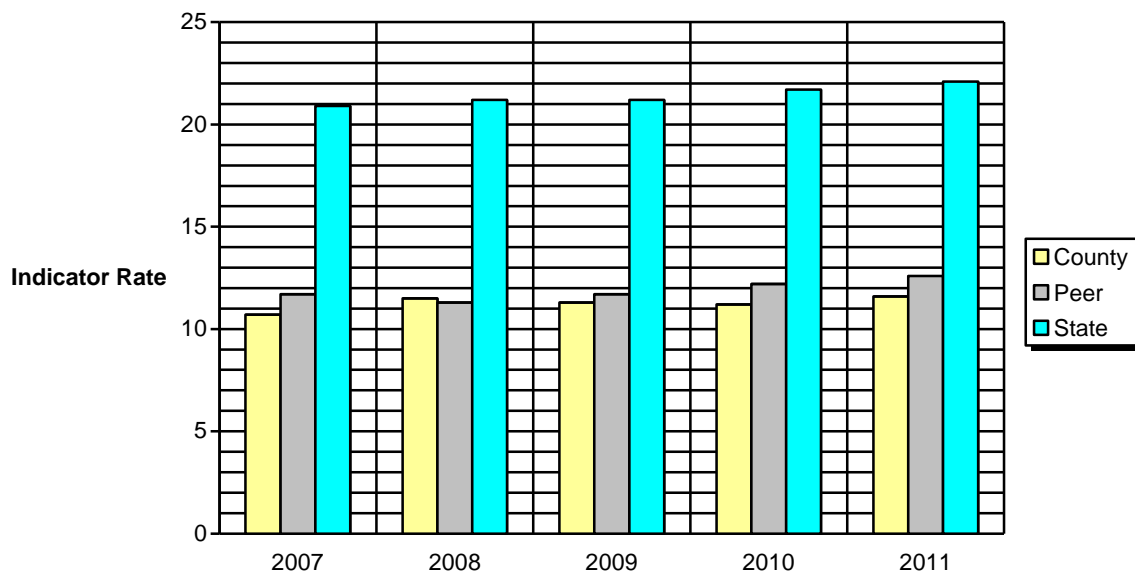
- In 2012, the unemployment Indicator Rate for Richmond County was 12.6, which was above the state rate of 9.4.
- Unemployment rates in Richmond County have decreased since the 2009. In 2009 Richmond County unemployment rate was 14.2 compared to the 2012 rate of 12.6.
- Richmond County unemployment rates are still higher than the state rate, which places Richmond County at a greater poverty risk.

Richmond County – Health Care Resources

Access and utilization of healthcare are affected by a range of variables including the availability of medical professionals in a region, insurance coverage, transportation, cultural expectations, and other factors.

Physicians per 10,000 Population

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2007	50	49	18,913	10.7	11.7	20.9
2008	54	43	19,542	11.5	11.3	21.2
2009	53	45	19,901	11.3	11.7	21.2
2010	52	47	20,752	11.2	12.2	21.7
2011	54	48	21,340	11.6	12.6	22.1

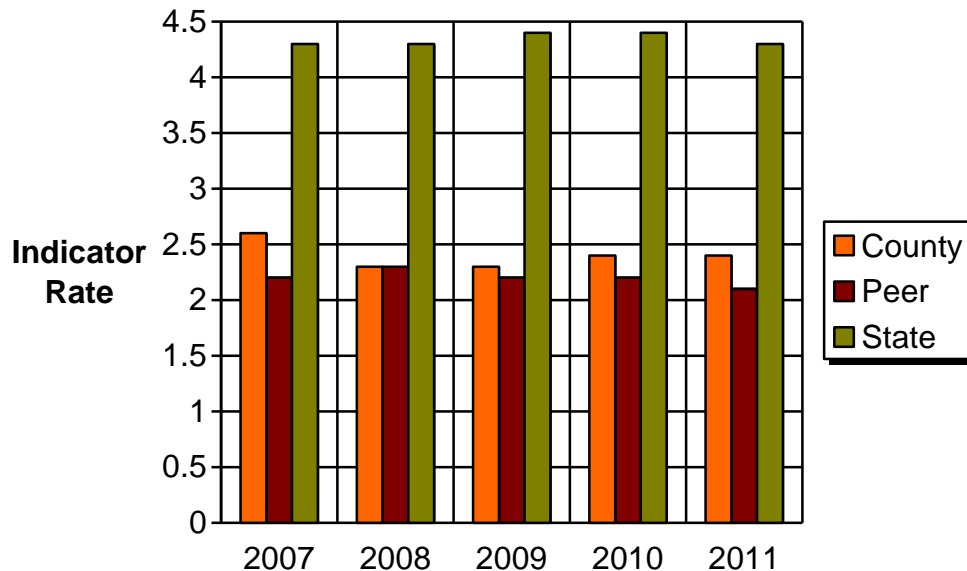
Source: (Physicians)

- The data indicates that there has not been an insignificant change in the number of Physicians from 2007 to 2011.
- The Indicator Rate for Richmond County in 2011 was 11.6 compared to 22.1 for the State.

Richmond County – Health Care Resources

Dentists per 10,000 Population

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2007	12	8	3,921	2.6	2.2	4.3
2008	11	8	3,987	2.3	2.3	4.3
2009	11	8	4,093	2.3	2.2	4.4
2010	13	8	4,178	2.4	2.2	4.4
2011	11	8	4,205	2.4	2.1	4.3

Source: (Dentists)

- There were approximately 2.4 dentists per 10,000 population in Richmond County in 2011.
- In 2011, the Indicator Rate for Richmond County was 2.4 compared to the 4.3 rate for the State.

Richmond County – Health Care Resources

The following tables illustrate the number and types of health professionals who practice in Richmond County.

Other Health Professionals in Richmond County, 2011

Chiropractors	2
Dental Hygienists	14
Occupational Therapists	4
Occupational Therapy Assistants	7
Optometrists	4
Pharmacists	41
Physical Therapists	12
Physical Therapist Assistants	8
Primary Care Physicians	32
Physician Assistants	7
Podiatrists	2
Psychological Associates	5
Respiratory Therapists	28

Source: (Other health professionals)

Total Nurses in Richmond County, 2011

Registered Nurses	Nurse Practitioners	Licensed Practical Nurses
352	12	93

Source: (Nurses)

- The active health care professionals in Richmond County in 2011 included 352 Registered Nurses, 12 Nurse Practitioners, and 93 Licensed Practical Nurses.

Richmond County – Health Care Resources



Richmond County Health Department

The Richmond County Health Department provides services to residents in Richmond County. The mission statement of the Health Department is to help prevent disease, promote health, protect the environment for the people of Richmond County and to continually assess and respond to the needs of the community. The Richmond County Health Department provides a wide variety of needed services for county residents. These programs include:

- Adult Primary Clinic for uninsured
- Maternal Health
- WIC (Women, Infants, & Children Nutrition)
- Communicable Disease
- Environmental Health
- Health Education
- Dental Children Clinic
- Pharmacy Assistance Program for uninsured
- Women's Preventive Health (Family Planning)
- Breast and Cervical Cancer Control Program
- Animal Control
- Pregnancy Care Management
- Care Coordination for Children Program (CC4C)
- Pregnancy Care Management Program (OBCM)

Richmond County – Health Care Resources



FirstHealth Richmond Memorial Hospital

Richmond Memorial Hospital, a division of FirstHealth Moore Regional Hospital, is a 99-bed, full-service community hospital dedicated to meeting the health care needs of the people of Richmond County and the surrounding area. Richmond Memorial provides a variety of services including a state-of-the art emergency department with full-time physician coverage provided by emergency medicine-trained physicians; a range of rehabilitation programs; a hyperbaric wound care center; inpatient and outpatient surgery including general, orthopedic, ENT, urology and gynecology; full diagnostic services using some of the latest technology; and women's and children's services including labor and delivery.

The range of physician specialties offered at Richmond Memorial include Family Medicine, Internal Medicine, Pulmonary, OB/GYN, Otolaryngology, Cardiology, Gastroenterology, Neurology, General Surgery, Emergency Medicine, Radiology, Anesthesiology and Pathology.

FirstHealth of the Carolinas has about 500 employees in Richmond County and also offers Home Care, an EMS service, community health services, family care centers and a Center for Health & Fitness in the county. A private, not-for-profit health care network serving 15 counties in the mid-Carolinas, FirstHealth is composed of four hospitals: Montgomery Memorial in Montgomery County, Moore Regional in Moore County and Moore Regional-Hoke Campus in Hoke County as well as Richmond Memorial. In an effort to provide a multi-disciplined continuum of care, the FirstHealth network also includes inpatient and outpatient rehabilitation programs, three sleep disorders centers, three dental care clinics for underserved children, ten family care centers, six health and fitness centers, four charitable foundations, a hospice program in Moore and Montgomery counties, a Home Care program and a regional EMS system.

FirstHealth's health insurance plan, First Carolina Care Insurance Company, offers a range of small- and large-group health benefit plans and a Medicare Advantage plan. First Carolina Care serves more than 18,000 members in its six-county service area.

Source: (Firsthealth richmond memorial)

Richmond County – Health Care Resources



Sandhills Regional Medical Center

Sandhills Regional Medical Center, formerly Hamlet Hospital, is a state-of-the-art facility licensed for 64 beds.

It was founded in 1915 by William Daniel James, M.D., and his wife Lillian Duer James, a registered nurse. The hospital was located on Vance Street in Hamlet until its relocation in February 2000 when it became Sandhills Regional Medical Center.

In recent years, Sandhills Regional has added innovative services and advance equipment. It was the first in the region to open a state-of-the-art wound care center that offers two hyperbaric chambers. One of the greatest achievements has been breaking ground for the county's first fixed-based MRI (Magnetic Resonance Imaging scanner), which took place on March 30, 2010. The open bore, 1.5 Tesla MRI features a larger opening for claustrophobic patients, and has the ability to capture high-quality diagnostic images.

Sandhills Regional received the official certificate of approval for the fixed-based MRI in 2009 from the Certificate of Need Section, Division of Health Service Regulation, Department of Health and Human Services. Sandhills Regional Medical Center employs the largest diverse, multi-specialty physician practice group in the area.

Services offered include: cardiology; ear/nose/throat; emergency medicine; endoscopy; family medicine; gastroenterology; general and vascular surgery; hematology; internal medicine; inpatient behavioral health; in-house laboratory & pathology services; laparoscopic surgery; laser surgery; nephrology; nutrition; ophthalmology; outpatient behavioral health; physical therapy; pulmonology; radiology; rehabilitation; sleep lab; spine/orthopedics; urology; and wound healing & hyperbaric medicine.

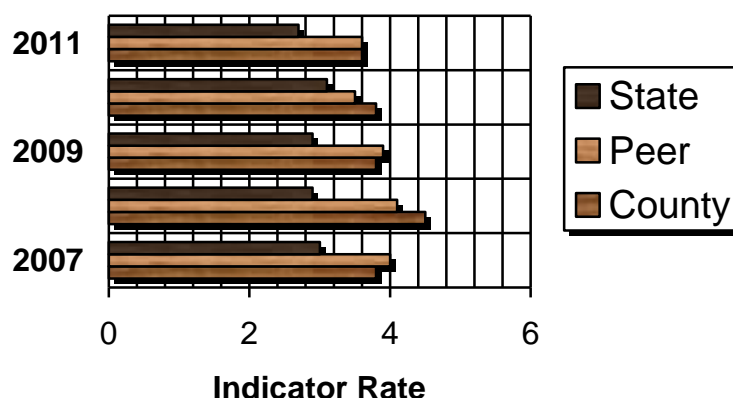
Source: (Sandhills regional medical)

Richmond County - Health Information

Mortality Data

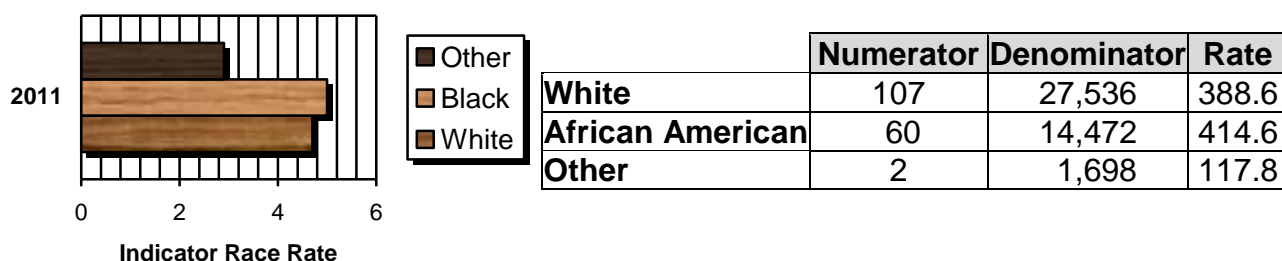
Premature Mortality per 100,000 Population (age < 65)

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer	State
2008	175	105	22,697	435.4	351.5	276.0
2009	154	102	22,818	415.3	343.6	274.2
2010	160	98	22,565	394.4	319.1	267.8
2011	172	114	23,024	424.0	375.2	270.8

Race Rate Graph



- African Americans are at a higher rate for premature mortality than Whites in Richmond County, which places African Americans at the greatest risk for premature mortality. Health resources are needed to help lower such risk within Richmond County.

Ethnicity Rate Graph



Source: (Mortality data)

Richmond County - Health Information

Infant Mortality Rate

Infant Mortality Rate per 1,000 Live Birth (Age<1)

Year	Residence	White Infant Deaths	Minority Infant Deaths	Total Infant Deaths
2008	North Carolina	558.0	508.0	1066.0
	Peer Average	1.0	3.8	4.8
	Richmond	2.0	3.0	5.0
2009	North Carolina	487.0	519.0	1006.0
	Peer Average	1.3	2.8	4.2
	Richmond	1.0	2.0	3.0
2010	North Carolina	362.0	492.0	854.0
	Peer Average	1.3	2.8	4.2
	Richmond	0.0	3.0	3.0
2011	North Carolina	369.0	497.0	866.0
	Peer Average	1.0	3.0	4.0
	Richmond	2.0	6.0	8.0
2012	North Carolina	5.5	8.3	7.4
	Peer Average	15.0	16.3	13.5
	Richmond	6.9	14.5	10.3

Source: (Infant mortality rate)

Infant Mortality Rate per 1,000 Live Birth (Age<1)

Year	Residence	White Non-Hispanic Infant Deaths		Af. Am. Non-Hispanic Infant Deaths		Other Non-Hispanic Infant Deaths		Hispanic Deaths		Total Infant Deaths	
		#	Rates	#	Rates	#	Rates	#	Rates	#	Rates
2011	North Carolina	369	5.5	367	12.9	32	5.2	98	5.4	866	7.2
	Peer Average	1	4.9	6	27.8	0	0.0	0	0.0	8	13.3
	Richmond	2	6.4	2	13.1	1	16.6	1	7.4	4	8.9
2012	North Carolina	369	5.5	395	13.9	43	6.7	76	4.2	883	7.4
	Peer Average	1	6.9	3	17.0	1	1.9	0	1.2	4	10.3
	Richmond	4	15.0	3	16.3	0	0.0	0	0.0	7	13.5

Source: (Infant mortality rate)

Note: Rates based on less than 10 deaths are unreliable and should be interpreted with caution.

-Af. Am.= African American

Source: (Infant mortality rate)

- White and African Americans both have high rates for infant mortality compared to the other races.
- These high rates within both communities' shows that health resources are still need in order to decrease the prevalence of infant mortality.

Richmond County - Health Information

Infant Mortality Rate continued

Infant Mortality Rate Comparison
Hispanic/Non-Hispanic Comparison

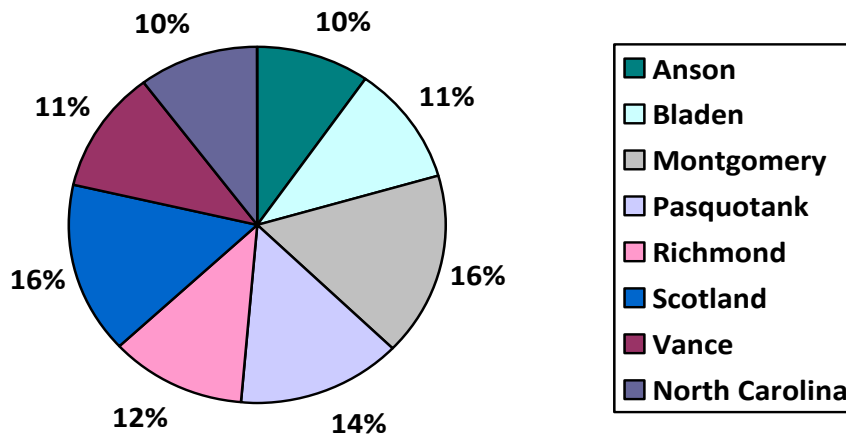
Richmond County	2012
Hispanic Deaths	0
Non Hispanic Deaths	7
Total Deaths	8
Hispanic Death Rate	0.0
Non Hispanic Rate Avg	10.4

Source: (Infant mortality rate)

Infant Mortality Rates
Five Year Rates

	2007-2011	2008-2012
Anson	4.8	7.2
Bladen	7.8	8.0
Montgomery	12.2	12.2
Pasquotank	11.1	10.4
Richmond	7.8	8.6
Scotland	11.0	11.5
Vance	11.1	8.3
North Carolina	7.8	7.5

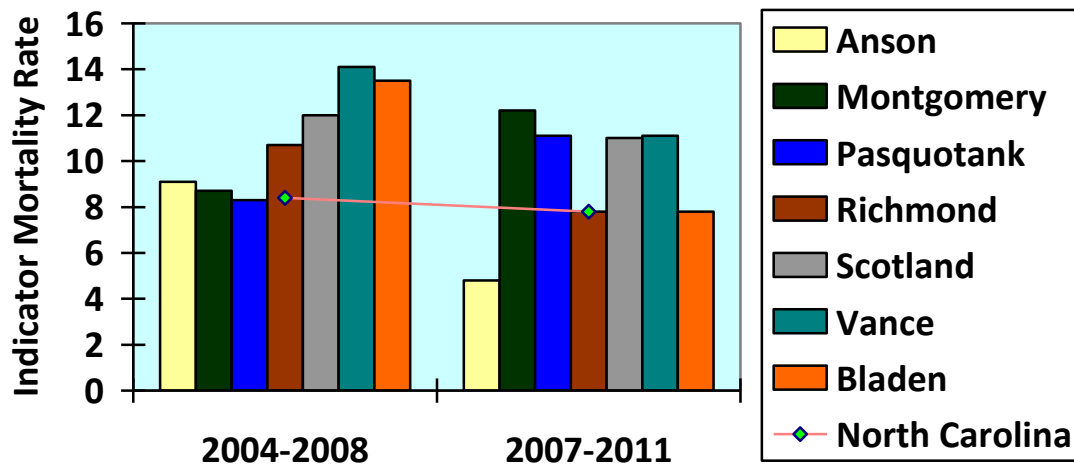
2008-2012 Infant Mortality Five Year Rates



Richmond County - Health Information

Infant Mortality Rate continued

5 Year Infant Mortality Rate vs. NC



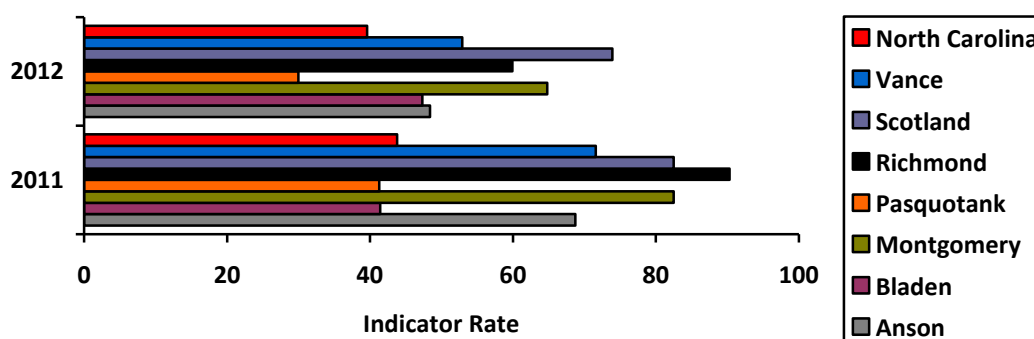
- The Infant Mortality rate has fluctuated from year-to-year in Richmond County. There has been a decrease in Richmond County and North Carolina Infant Mortality rate. However, health resources are still need for this decrease in rates to continue for another 5 years.
- There has been significant change in the six surrounding counties rates as well.
- Hispanic infant mortality rate was 4.2 in 2012, While White infant mortality rate was 5.5 in 2012. The Hispanic population is the minority and the White population is the majority in Richmond County. Due to there infant mortality rates being so close this indicates the Hispanic population in Richmond County are at risk and they need health resources in order to decrease their rates in the future.

Richmond County - Health Information

Teen Pregnancy Rates

Ages 15-19

Rates Over Time



2012 Teen Pregnancy Rates by Race

	White		African American		Other		Hispanic		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Anson	10	*	28	59.7	1	*	0	*	39	48.4
Bladen	24	49.7	14	*	4	*	8	*	50	47.3
Montgomery	19	*	19	*	1	*	17	*	57	64.8
Pasquotank	17	*	25	32.6	1	*	0	*	43	30.0
Richmond	41	56.5	37	64.3	3	*	8	*	89	59.9
Scotland	26	51.8	56	97.4	14	*	1	*	97	73.9
Vance	14	*	64	67.5	0	*	*	6	84	52.9
North Carolina	5,233	28.3	4,742	55.0	471	36.4	2,045	62.0	12,535	39.6

2011 Teen Pregnancy Rates by Race

	White		African American		Other		Hispanic		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Anson	12	*	37	75.8	0	*	8	*	57	68.7
Bladen	19	*	20	42.5	2	*	4	*	45	41.4
Montgomery	32	73.6	22	102.8	1	*	15	*	70	82.5
Pasquotank	20	30.9	40	48.6	0	*	4	*	64	41.3
Richmond	58	76.9	67	113.4	7	*	6	*	138	90.3
Scotland	27	53.3	68	110.4	15	*	0	*	110	82.5
Vance	25	46.6	79	80.6	1	*	14	*	119	71.6
North Carolina	5,719	30.8	5,399	61.6	495	39.4	2,241	71.1	13,909	43.8

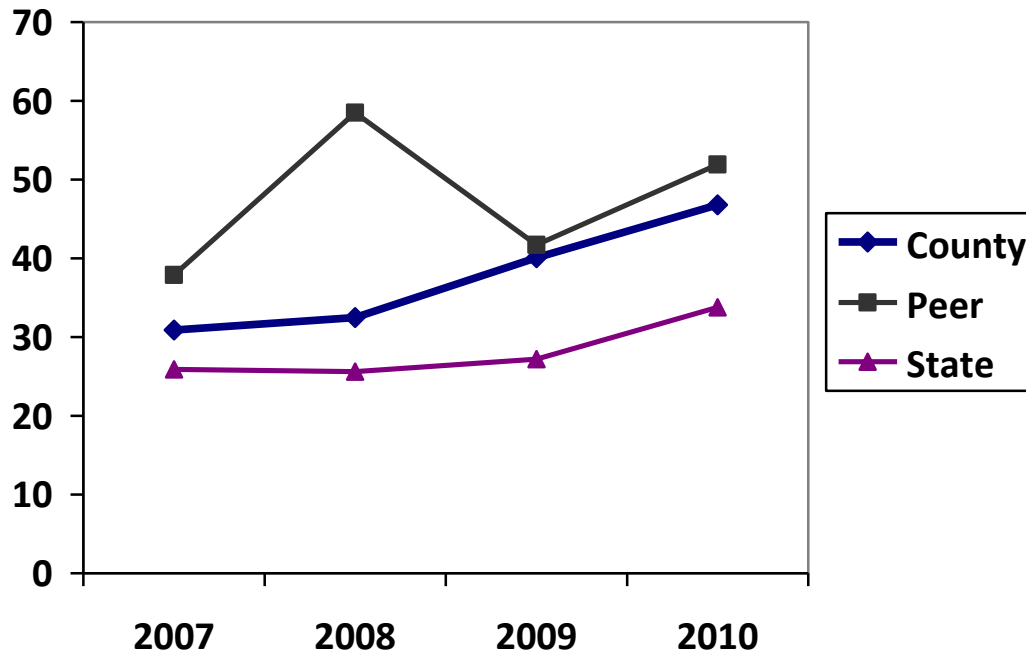
*Technical Note: Rates Based on Small Number (Fewer Than 20 Cases) are unstable and are not reported. **Source:** (Reported pregnancies)

- Richmond County Teen Pregnancy rates fell 28% in 2012. Teen pregnancy rates among the county's white population fell 22.5 %, while the minority population fell 38.6%. The African American population is no longer the population at risk.
- The repeat teen pregnancy rate also declined to 19.1%, which is down from the 2010 rate of 24.6%.

Richmond County - Health Information

% of Births to WIC Mothers

Rates Over Time



Year	Indicator Raw Values			Indicator Rate Values		
	County	Peer Avg	State	County	Peer Avg	State
2007	511	321	62,023	30.9	37.9	25.9
2008	514	317	64,492	32.5	58.5	25.6
2009	451	303	63,379	40.1	41.7	27.2
2010	374	241	48,438	46.8	51.9	33.8

Source: (Pregnancy nutrition surveillance)

- From 2007 to 2010, there was a steady increase, according to the indicator rate, in the percent of births to WIC mothers for Richmond County.
- In 2010, the indicator rate for Richmond County was 46.8 compared to the state rate of 33.8.

Richmond County - Health Information

Childhood Obesity

Richmond County BMI in School Age Children

Percentages for the 2010-2011 School Year
Ages 5 – 11 Years Old
Elementary Schools

BMI for Fall 2010

	Under Weight	Normal Weight	Over Weight	Total Number of Children Assessed
Male	1%	57%	42%	875
Female	1%	57%	42%	866

BMI for Spring 2011

	Under Weight	Normal Weight	Over Weight	Total Number of Children Assessed
Male	2%	55%	43%	876
Female	2%	56%	42%	866

Source: (Public Schools)

Percentages for the 2011-2012 School Year
Ages 5 – 11 Years Old
Elementary Schools

BMI for Fall 2011

	Under Weight	Normal Weight	Over Weight	Total Number of Children Assessed
Male	3%	58%	39%	994
Female	2%	58%	40%	973

BMI for Spring 2012

	Under Weight	Normal Weight	Over Weight	Total Number of Children Assessed
Male	3%	58%	39%	1007
Female	2%	57%	41%	990

Source: (Public Schools)

Richmond County - Health Information

Childhood Obesity continued

Richmond County BMI in School Age Children

Percentages for the 2012-2013 School Year
Ages 5 – 11 Years Old
Elementary Schools

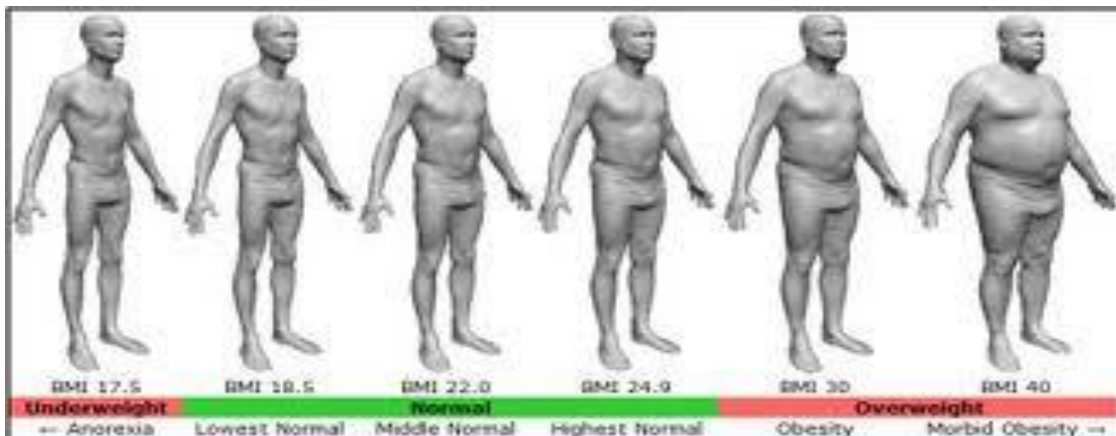
BMI for Fall 2012

	Under Weight	Normal Weight	Over Weight	Total Number of Children Assessed
Male	2%	60%	38%	1026
Female	2%	54%	44%	968

BMI for Spring 2013

	Under Weight	Normal Weight	Over Weight	Total Number of Children Assessed
Male	43%	64%	36%	1017
Female	2%	56%	42%	976

Source: (Public Schools)



Underweight	Normal	Overweight
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Richmond County - Health Information

Childhood Obesity continued

Richmond County BMI in School Age Children

Normal Weight compared to Over Weight
Percentages for the 2012-2013 School Year
Ages 5 – 11 Years Old
Elementary Schools

BMI for Fall 2012

School	Normal Weight	Over Weight
East Rockingham	58%	40%
Fairview Heights Elem	57%	41%
L.J. Bell Elementary	60%	38%
Mineral Springs Elem	53%	45%
Monroe Avenue Elem	56%	41%
Washington Street	55%	43%
West Rockingham Elem	60%	37%

BMI for Spring 2013

School	Normal Weight	Over Weight
East Rockingham	59%	38%
Fairview Heights Elem	58%	40%
L.J. Bell Elementary	65%	31%
Mineral Springs Elem	56%	42%
Monroe Avenue Elem	55%	44%
Washington Street	57%	40%
West Rockingham Elem	56%	40%

Source: (Public Schools)

- The percentage of students ages 5-11 has overall decreased from 2010 to 2013 as depicted in the previous tables within the childhood obesity section.
- Obesity and overweight define weight ranges greater than what is generally considered healthy for a given height.
- Females ages 5-11 in Richmond County are at the greatest risk for becoming obesity/overweight. More than 30% of children in Richmond County Elementary Schools are overweight. Health resources are needed in order to lower these risks within Richmond County.
- Overweight and obesity are each determined by using weight and height to calculate a measure called the “body mass index” (BMI). BMI is defined as weight (in kilograms) divided by height (in meters) squared [weight in kilograms/(height in meters)]. BMI is used because, for most people, it correlates with their amount of body fat and is easily obtainable in a clinical setting.

Richmond County - Health Information

Childhood Obesity continued

- BMI ranges for children and youth take into account normal differences in body fat between boys and girls as well as differences in body fat at various ages. Many sources have used or still use the older categories of at risk of overweight and overweight to describe children and youth between 85th and 95th percentile and above the 95th percentile, respectively.

Source: (Bmi ranges)

Child Oral Health

North Carolina Child Health Assessment and Monitoring Program (CHAMP) Survey: Regional Results 2009-2010

- The question following question was asked to ages>1; Does s/he have a dentist or dental clinic where s/he goes regularly? The table below represents the response from the following survey.

	Total Respond	Yes		No	
		N	%	N	%
North Carolina	4,188	3,443	81.9	745	18.1
REGION					
Eastern NC	1,129	894	80.6	235	19.4
Piedmont	2,382	1,989	82.5	393	17.5
Western NC	677	560	82.0	117	18.0

N = numerator, % = Percentage. Percentages are weighted to population characteristics and therefore cannot be calculated exactly from the numbers in this table.

Eastern North Carolina: Beaufort, Bertie, Bladen, Brunswick, Camden, Carteret, Chowan, Columbus, Craven, Cumberland, Currituck, Dare, Duplin, Edgecombe, Gates, Greene, Halifax, Harnett, Hertford, Hoke, Hyde, Johnston, Jones, Lenoir, Martin, Nash, New Hanover, Northampton, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Pitt, Robeson, Sampson, Scotland, Tyrrell, Washington, Wayne, and Wilson counties.

Piedmont North Carolina: Alamance, Alexander, Anson, Cabarrus, Caswell, Catawba, Chatham, Cleveland, Davidson, Davie, Durham, Forsyth, Franklin, Gaston, Granville, Guilford, Iredell, Lee, Lincoln, Mecklenburg, Montgomery, Moore, Orange, Person, Randolph, **Richmond**, Rockingham, Rowan, Stanly, Stokes, Union, Vance, Wake, Warren, and Yadkin counties.

Western North Carolina: Alleghany, Ashe, Avery, Buncombe, Burke, Caldwell, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, McDowell, Macon, Madison, Mitchell, Polk, Rutherford, Surry, Swain, Transylvania, Watauga, Wilkes, and Yancey counties.

Source: (Regional results 2009-2010)

- Richmond County is part of the Piedmont Region. The Piedmont Region has the highest percent of individuals that have a dentist or dental clinic where the individual goes for regular cleaning compared to the other two regions mentioned above.

Richmond County - Health Information

Child Oral Health continued

The Dental Clinic is located at the Richmond County Health Department. The Dental Clinic is open four days a week and accepts Medicaid, Health Choice and Cash for services. The clinic provides all types general dentistry; exams, x-rays, preventive services, fillings, complete cleanings, dental sealants, and extractions to patients ages 4-20.

Parents will be provided with educational material when available. Appropriate referrals are made when necessary.

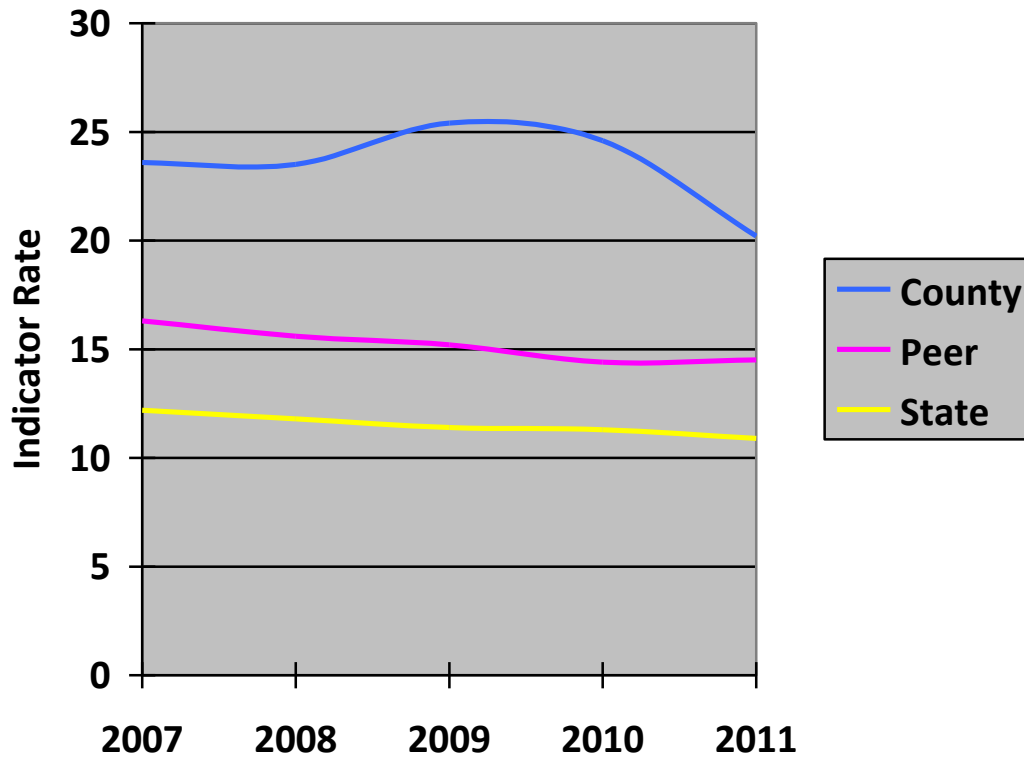


Richmond County - Health Information

Hospitalization Data

Heart Disease Discharges per 1,000 Population

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2007	1,102	557	110,640	23.6	16.3	12.2
2008	1,101	533	108,494	23.5	15.6	11.8
2009	1,189	520	107,137	25.4	15.2	11.4
2010	1,148	502	108,060	24.6	14.4	11.3
2011	942	502	105,242	20.2	14.5	10.9

Source: (Inpatient hospital utilization)

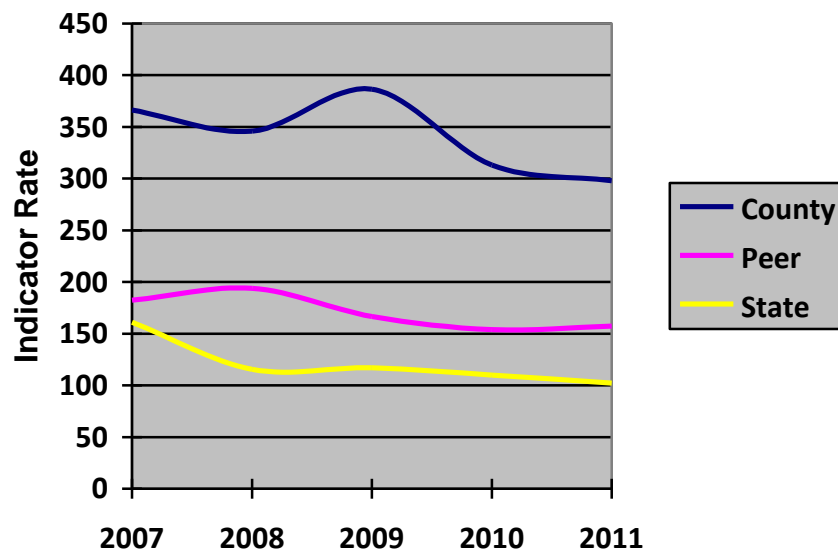
- The Indicator Rate for Richmond County in 2007 was 23.6; however, there was a significant decline in 2011 to 20.2.
- Hospital discharge rates for heart disease in years 2007 - 2011 was significantly higher than the state average.

Richmond County - Health Information

Hospitalization Data

Asthma Discharges per 100,000 Population

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
	County	Peer Avg	State	County	Peer Avg	State
2007	171	65	10,535	366.4	182.4	161.2
2008	162	69	10,644	345.8	193.9	115.4
2009	181	60	10,986	386.4	166.6	117.1
2010	146	57	10,470	313.0	153.8	109.8
2011	139	59	9,880	298.0	157.4	102.3

Source: (Asthma hospital discharges)

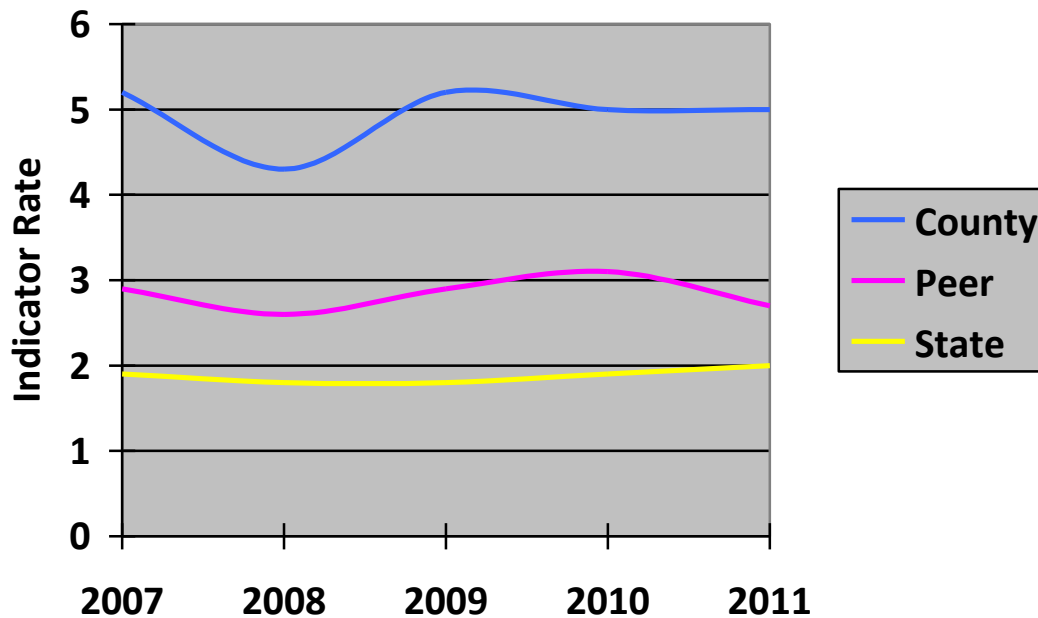
- The Indicator Rate for Richmond County in 2007 was 366.4; there was however, a significant decline in 2011 to 298.0.
- Hospital discharge rates for asthma in years 2007 - 2011 was significantly higher than both the state and peer average. Health resources are still needed in Richmond County in order to continue the decrease in prevalence.

Richmond County - Health Information

Hospitalization Data

Diabetes Discharges per 1,000 Population

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2007	245	99	16,956	5.2	2.9	1.9
2008	202	555	16,595	4.3	2.6	1.8
2009	244	100	16,642	5.2	2.9	1.8
2010	232	110	18,101	5.0	3.1	1.9
2011	231	96	18,860	5.0	2.7	2.0

Source: (Inpatient hospital utilization)

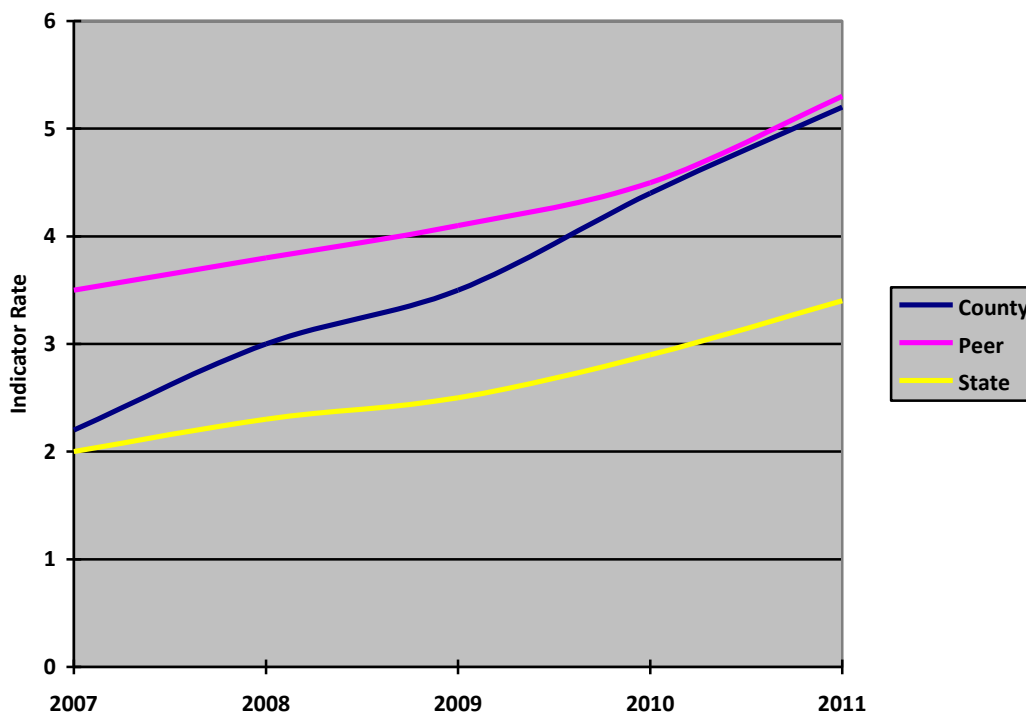
- Risk factors for diabetes include: older age, obesity, family history of diabetes, prior history of gestational diabetes, impaired glucose tolerance, and physical inactivity.
- In Richmond County, the diabetes rate was considerably higher than the state rate from 2007 to 2011. The county rates have decreased from 5.2 in 2007 to 5.0 in 2011. Health resources are still needed in Richmond County in order to reduce the risk of diabetes.

Richmond County - Health Information

Hospitalization Data

Septicemia Discharges per 1,000 Population

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2007	105	110	18,561	2.2	3.5	2.0
2008	139	123	21,189	3.0	3.8	2.3
2009	163	137	23,362	3.5	4.1	2.5
2010	203	152	27,412	4.4	4.5	2.9
2011	242	179	33,053	5.2	5.3	3.4

Source: (Inpatient hospital utilization)

- Septicemia is a quickly progressing infection resulting from the presence of bacteria in the blood. The disease often arises from other infections throughout the body, such as wound infections, burns, and meningitis.
- Since 2007, the septicemia indicator rates for the county and state have increased significantly. The risk of becoming infected with Septicemia has increased from a rate of 2.2 in 2007 to 5.2 in 2011. Health resources are needed to stop this rapid increase.

Richmond County - Health Information

Alzheimer's Disease and Dementia

Mortality Statistics Summary for 2011

Geographical Area	Number of Deaths 2011	Death Rate 2011	Number of Deaths 2007-2011	Death Rate 2007-2011	Age-Adjusted Death Rate 2007-2011
Richmond County	4	8.6	32	13.8	12.6
North Carolina	2,820	29.2	13, 347	28.5	29.0

Source: (Alzheimer's Association)

Dementia

Dementia is a general term for a decline in mental ability severe enough to interfere with daily life. Memory loss is an example. Alzheimer's is the most common type of dementia.

Dementia is not a specific disease. It's an overall term that describes a wide range of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities. Alzheimer's disease accounts for 60 to 80 percent of cases. Vascular dementia, which occurs after a stroke, is the second most common dementia type. But there are many other conditions that can cause symptoms of dementia, including some that are reversible, such as thyroid problems and vitamin deficiencies.

Dementia is often incorrectly referred to as "senility" or "senile dementia," which reflects the formerly widespread but incorrect belief that serious mental decline is a normal part of aging.

It is important to identify the underlying cause of dementia because interventions and treatments for different types may vary. Some conditions such as depression and nutritional deficiencies are treatable. An early evaluation and careful diagnosis can help identify "reversible" conditions, give people a greater chance of benefiting from existing treatments, and allow individuals and families more time to plan for the future.

While symptoms of dementia can vary greatly, at least two of the following core mental functions must be significantly impaired to be considered dementia:

- Memory
- Communication and language

Richmond County - Health Information

Alzheimer's Disease and Dementia continued

- Ability to focus and pay attention
- Reasoning and judgment
- Visual perception

People with dementia may have problems with short-term memory, keeping track of a purse or wallet, paying bills, planning and preparing meals, remembering appointments or traveling out of the neighborhood.

Source: (Alzheimer's Association)

Alzheimer's Disease

Alzheimer's disease (pronounced Ahlz'-hi-merz) is the most common cause of dementia. Alzheimer's is a progressive, degenerative disease that creates irreversible changes in brain cells and results in impaired memory, thinking and ability to reason. Over time, these changes become so severe that they interfere with daily functioning and eventually result in death.

Alzheimer's disease is characterized by a decline in the ability to perform routine tasks, gradual memory loss, confusion, loss of language skills, and impaired judgment and planning. People with Alzheimer's experience difficulty with learning, decision-making, personal care activities, and communicating-- both in expressing thoughts and understanding what others are saying. Other common symptoms include changes in mood, personality, and behavior, such as agitation, suspiciousness, anxiety, delusions, and hallucinations.

Increasing age is the greatest known risk factor for Alzheimer's. One in ten individuals age 65 or older and nearly half of those over 85 are affected. However, Alzheimer's disease can strike adults as early as their 30's and 40's. A person with Alzheimer's will live an average of eight years from the onset of symptoms although the duration can range from 2 to 20 years. The actual rate of disease progression varies from person to person.

Alzheimer's disease is the sixth leading cause of death for people in the United States.

An estimated 5.2 million Americans of all ages have Alzheimer's disease in 2013. This includes an estimated 5 million people age 65 and older and approximately 200,000 individuals younger than age 65 who have younger-onset Alzheimer's. By 2025, the number of people age 65 and older with Alzheimer's disease is estimated to reach 7.1 million—a 40 percent increase from the 5 million age 65 and older currently affected.

Source: (Alzheimer's Association)

Richmond County - Health Information

Sexually Transmitted Infection Data

HIV Disease rate per 100,000 Population

Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2008	7	6	1,811	15.2	17.2	19.6
2009	6	4	1,634	13.1	11.1	17.4
2010	7	5	1,469	15.0	14.3	15.4
2011	8	6	1,563	17.2	15.0	16.4

Source: (The annual north)

Chlamydia rate per 100,000 Population

Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2008	161	192	37,885	349.8	552.5	409.7
2009	286	217	43,734	622.1	621.5	466.2
2010	204	212	42,167	437.4	577.3	442.2
2011	201	242	53,854	431.0	656.5	564.8

Source: (The annual north)

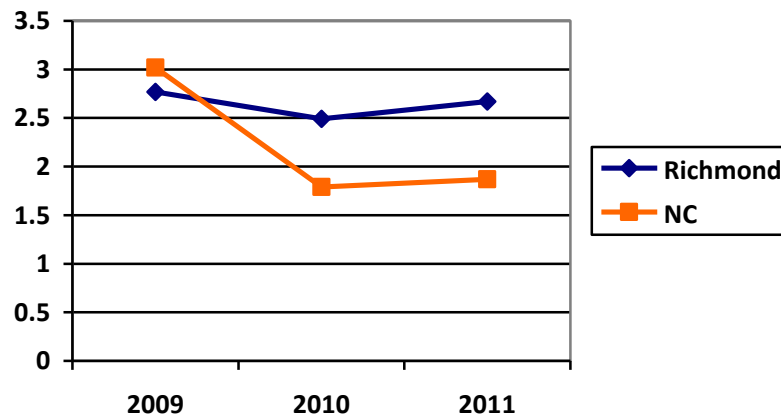
Gonorrhea rate per 100,000 Population

Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2008	74	89	15,012	160.8	255.3	162.3
2009	144	109	14,811	313.2	319.6	157.9
2010	65	95	14,153	139.4	252.7	148.4
2011	60	93	17,158	128.6	254.2	179.9

Source: (The annual north)

- Health professionals are required to report cases of certain communicable diseases to the North Carolina Department of Health and Human Services through their local health department.
- The 2008-2011 sexually transmitted rates were reported on cases per 100,000 people. For HIV and Chlamydia in 2008 and 2011 the incident rates increased in Richmond County.
- Richmond County is at a higher risk for HIV and Chlamydia. Health resources are needed to lower this risk.

Substance Abuse



Controlled Substance Prescription Drugs filled

Years	Number filled in Richmond	Rate filled in Richmond	Rate filled in NC
2009	129,762	2.77	3.02
2010	116,502	2.49	1.79
2011	124,667	2.67	1.87

Source: (Prescription and drug overdoses)

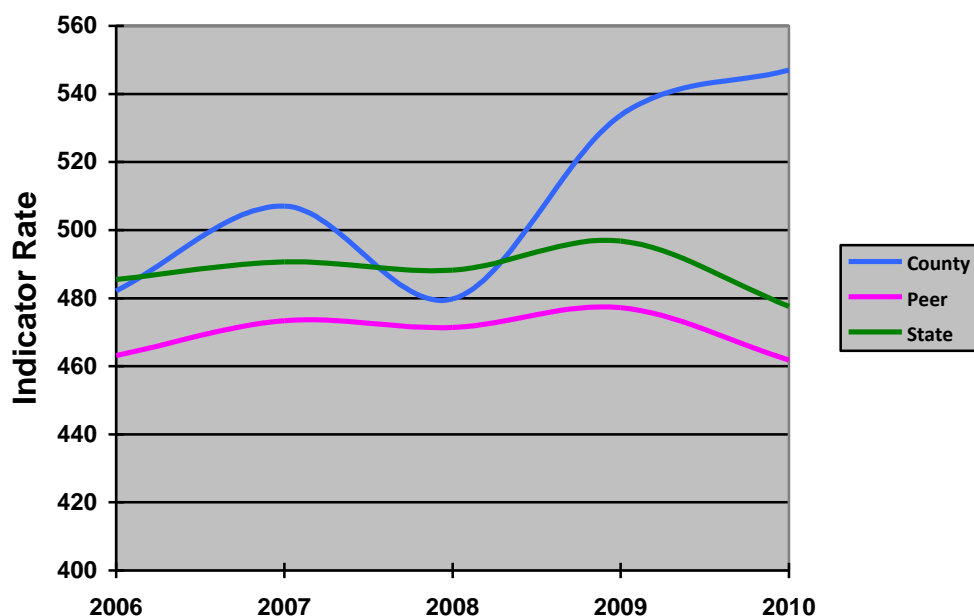
- Substance Abuse in Richmond County youth is a growing issue. Health resources are needed to help decrease this issue.

-An epidemic of unintentional poisoning deaths continues to affect North Carolina. Since 1999 the number of deaths has increased by more than 300 percent, from 297 to 1,140 in 2011. The vast majority of unintentional deaths are drug or medication-related occurring when people misuse or abuse these drugs. In particular, opioid analgesics are now involved in medications such as methadone, oxycodone, and hydrocodone have increased significantly in North Carolina. Opioid analgesics are now included in more drug deaths than cocaine and heroin combined.

Richmond County - Health Information

Total Cancer Cases (All Sites) per 100,000 Population

Rates Over Time



Indicator Raw Values				Indicator Rate Values		
Year	County	Peer Avg	State	County	Peer Avg	State
2006	242	172	44,319	482.1	463.1	485.5
2007	262	180	46,175	507.0	473.4	490.7
2008	250	184	47,588	479.8	471.4	488.2
2009	281	189	49,575	533.8	477.2	496.8
2010	296	192	49,340	547.0	461.8	477.6

Source: (Central cancer registry)

- Cancers of all kinds are sometimes grouped together in a parameter called “total cancer”. Cancer is a group of diseases characterized by the unrestrained growth and spread of abnormal body cells.
- The incidence rate for “total cancer” in Richmond County was above the state rate during 2007, 2009, and 2010. Richmond County Cancer cases rate was 482.1 in 2006 and 547.0 in 2010. This significant increase indicates Richmond County risk for Cancer. Health resources are needed to reduce the number of new cases.

Richmond County - Health Information

Cancer Profiles

A fact sheet produced by the North Carolina Central Cancer Registry (CCR)

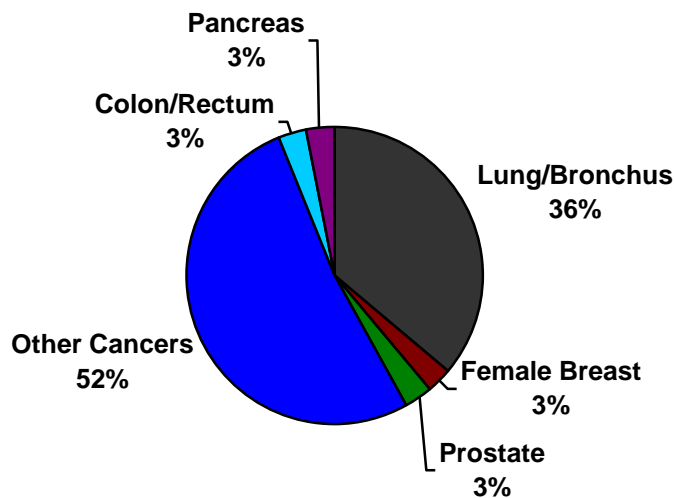
In 2011, cancer was the second leading cause of death in the United States according to the Centers for Disease Control and Prevention (CDC), while it was the leading cause of death in North Carolina.¹ In 2011, 18,201 persons in North Carolina died from cancer, 118 in Richmond County (Table 1).

Table 1. 2011 Percent of Cancer Deaths in Richmond County Compared to 2011 Percent of Cancer Deaths in North Carolina

Richmond County	North Carolina
22.2%	22.8%

Cancer is a group of more than 100 different diseases, but all are characterized by uncontrolled growth and spread of abnormal cells. Cancer risk increases with age, and varies by gender and race. As the average age of the population increases, the incidence of cancer will increase as well. In 2009, cancer surpassed heart disease as the leading cause of death in North Carolina. The majority of cancer deaths occur at five sites: colon/rectum, pancreas, lung/bronchus, female breast and prostate (Figure 1).

Figure 1 - Richmond County 2011 Cancer Deaths by Site



Source: ("Cancer profiles," 2013)

Richmond County - Health Information

Cancer Profiles continued

It is generally recognized that a majority of cancers are related to personal lifestyle or environmental factors, such as smoking and diet, and are therefore preventable. Other factors such as age, gender and family history of a specific cancer are also associated with the development of cancer and aid in the identification of people at high risk.

For several cancers, effective treatment is available. For these cancers, early detection saves lives. For example, according to the Surveillance Epidemiology and End Results (SEER) website, almost 98 percent of women who are diagnosed with breast cancer in the earliest stage survive the disease, whereas only 24 percent survive if the disease is diagnosed in the most advanced stage. The opportunity for disease control and for reducing the number of cancer deaths rests with prevention and early detection so that treatment of the disease can be effective. In 2010, 296 cancer cases were reported for Richmond County residents. These numbers are expected to increase as the population ages (Table 2).

Table 2. 2011 Projected Cancer Cases for Richmond County and North Carolina		
	<u>Richmond County</u>	<u>North Carolina</u>
Lung/Bronchus	43	8,559
Colon/Rectum	24	4,852
Female Breast	46	9,339
Prostate	42	8,316
Pancreas	7	1, 322
All Cancers	279	56, 163

For some cancers, prevention is more beneficial than early detection. For example, lung cancer is a disease that takes many years to develop and often metastasizes, or spreads, to other parts of the body before it is detected. This need not be the case, as lung cancer is one of the most preventable cancers. According to the 2010 Surgeon General's Report, it is estimated that more than 85 percent of lung cancers result from smoking. According to the American Cancer Society (ACS), cigar and pipe smoking are almost as likely to cause lung cancer as cigarette smoking. Non-smokers who breathe in second-hand smoke are also at increased risk. The risk of lung cancer seems to increase with age.

Source: ("Cancer profiles," 2013)

Richmond County - Health Information

Cancer Profiles continued

Stopping smoking at any age lowers the subsequent risk of developing lung cancer. The Behavioral Risk Factor Surveillance System's annual survey of adult North Carolinians examines risk factors such as these. For the 11,501 persons who indicated their age and smoking behaviors in the 2011 survey, the highest percentages of smokers were between 18 and 54 years of age (Table 3). According to this survey, adults 55 and older have the highest cessation rate, indicating that as North Carolinians age, the number of smokers appears to decrease. A reduction in smoking will decrease the number of lung cancers that are diagnosed over time.

Table 3. Percentage of Respondents in North Carolina in Each Age Group Who Currently Smoke or Have Smoked in the Past

Age Group	Total Respondents	Current Smokers	Former Smokers
18-24	1,428	24.0%	12.6%
25-34	1,551	20.0%	19.1%
35-44	2,089	24.6%	24.6%
45-54	2,469	18.7%	33.5%
55-64	2,118	12.7%	47.3%
65+	1,708	6.0%	41.2%
All Ages	11,501	17.6%	24.8%

Risk Factors and Interventions

Tobacco Use: According to the ACS, smoking and the use of smokeless tobacco are responsible for the majority of all cancers of the lung, trachea, bronchus, larynx, pharynx, oral cavity and esophagus. According to the 2012 Surgeon General's Report, tobacco use is the leading cause of preventable death in the United States.

Nutrition and Physical Activity: Sustaining a healthy diet and being active can influence the risk of developing cancer. Eating a variety of healthful foods, with an emphasis on plant sources, adopting a physically active lifestyle, maintaining a healthy weight and limiting alcoholic consumption are recommended by the ACS for cancer prevention.

Source: ("Cancer profiles," 2013)

Richmond County - Health Information

Cancer Profiles continued

Sunlight and Ultraviolet Rays: Exposure to intense sunlight and UV rays are risk factors in developing skin cancer. Sun safety tips for lowering this risk include limiting direct sun exposure during midday, covering up when outdoors, using sunscreen with a Sun Protection Factor of at least 30 and avoiding tanning beds and sunlamps.

Screening: Early detection is extremely important for those cancers that can be cured and which can be discovered early. Breast cancer is a good example of this. Stage at diagnosis is the most important factor in determining chance of survival from breast cancer. In 2013, a projected 9,339 women in North Carolina will be diagnosed with breast cancer, 46 in Richmond County. Many of these women will survive because they were diagnosed early, but some will face premature death because they were diagnosed too late for effective treatment.

According to the ACS's recommendations, women 40 years and older should have a mammogram every year. A clinical breast exam (CBE) by a health care professional is also recommended annually after the age of 40. Women 20–39 years of age should have a CBE by a health care professional every three years. Monthly self-examinations are an option for women beginning in their 20s. Oral cancer is often overlooked because of its relatively low incidence (10.9 per 100,000 in 2009) and mortality (2.4 per 100,000 in 2009) in the United States according to the CDC Wonder website. However, it is one of the most preventable cancers with high survival rates when treated at early stages. According to SEER, the five-year relative survival for those treated at localized stage was 82.4 percent but it was 57.3 percent when the cancer had already spread to lymph nodes. Unfortunately, the majority (>60%) of oral cancer cases in the United States were diagnosed at later stages. It is also worth noting that the risk factors for oral cancer are: tobacco use, heavy alcohol use, Human Papillomavirus (HPV) infection, excessive sun exposure, lack of vegetables in the diet and Betel nut use. These factors are mostly behavior-based; therefore, the risk of oral cancer can be minimized via behavioral change and vaccination against HPV. In North Carolina, over 65 percent of the cases were diagnosed at later stages in 2010 and stages at diagnoses revealed racial disparity, in which higher proportions of late-stage cases were diagnosed among African Americans than whites. Efforts are necessary to reduce the incidence of oral cancer and to increase screening of oral cancers among at-risk populations.

Source: ("Cancer profiles," 2013)

Richmond County - Health Information

2011 Comparison of the Leading Causes of Death Rates

Richmond County vs. North Carolina Rates

Cause	White Non-Hispanic		Minority		Male		Female		Overall	
	C	NC	C	NC	C	NC	C	NC	C	NC
Total Heart Disease	22.9	21.6	30.2	20.5	20.7	22.5	29.2	20.0	24.8	21.3
Total Cancer	22.4	22.7	21.5	23.7	24.4	24.7	19.8	21.0	22.2	22.8
Cerebrovascular Disease	4.7	5.2	5.4	6.1	4.7	4.5	5.4	6.3	5.1	5.4
Chronic Lower Respiratory Disease	6.6	6.8	*	2.8	4.7	5.4	5.1	6.4	4.9	5.9
Diabetes	5.8	2.4	5.4	4.6	5.5	2.9	5.8	2.8	5.6	22.8
Unintentional Injury	5.0	4.0	2.7	2.8	5.8	4.5	2.7	3.1	4.3	3.8
Nephritis, nephrotic syndrome and nephrosis	1.8	1.8	4.0	3.5	*	2.1	3.1	2.2	2.4	2.1

C= Richmond County, NC= North Carolina, *Technical Note: Rates Based on Small Number (Fewer Than 20 Cases) are unstable and are not reported.

Source: North Carolina State Center for Health Statistics

- The Richmond County Heart Disease Overall rate was 21.3 for 2011 compared to 27.8 for 2007. The rate has fell significantly since 2007. The data collected for leading causes of death reflect Heart Disease continues to be the leading cause of death for Richmond County; followed by Cancer with the second leading cause of death. This makes Heart Disease the top priority of the issues to be addressed followed by the others listed above.
- The following causes all pose great risk to Richmond County because their rates continue to remain in the top 10 leading causes of death.
- Males in Richmond County are at the greatest risk for cancer and chronic lower respiratory disease compared to women. Health resources are needed to get this information out and educate the males and females within Richmond County in order to lower this statistic.

Richmond County- Health Information

Environmental Health Report

Water Quality

One measure of a community's environmental health is the status of its waters as evaluated according to the process established by the Federal Clean Water Act of 1972. Water is a renewable resource, but clean water is in limited quantity; as the population continues to grow, the demand for clean water rises every year. The Division of Water Quality (DWQ) in the NC Department of Environment and Natural Resources (DENR) operates the Ambient Monitoring System (AMS) in order to monitor and assess the State's water quality. The AMS consists of a network of stations established to provide site-specific, long-term water quality information on significant rivers, streams, and estuaries throughout the State (1). Program objectives include:

- To monitor water bodies of interest for determination of levels of chemical, physical, and bacterial pathogen indicators for comparison to a selection of the State's water quality standards and action levels.
- To identify locations where exceedances of water quality standards and action levels for physical and chemical indicators occur in more than 10% of samples/measurement (20% for coliforms).
- To identify long-term temporal or spatial patterns.

The Data produced by the AMS are also used to support several State water quality management programs, including Basinwide Water Quality Management Plan development, biennial 305(b) and 303(d) reporting to EPA, TMDL development, and development of NPDES permit limits.

There are currently 323 active AMS stations. These stations are located in all seventeen major river basins of the state, and in 95 of North Carolina's 100 counties.

Ambient Monitoring System Stations in Richmond County

Lumber River Basin
Drowning Creek US 1 Hoffman

Yadkin River Basin
Pee Dee River US 74 Rockingham
Hitchcock Creek SR 1109 Cordova
Marks Creek SR 1812 Hamlet

Source: (North Carolina Department of Environment and Natural Resources, Division of Water Quality, Ambient Monitoring Systems.)

The 303(d) list report traditionally describes the quality of surface waters, groundwater's, and wetlands; according to how well they support the designated uses (e.g., recreation, fish consumption, water supply) and what might be causes and sources of impairment for those designated uses. North Carolina conducts its water quality assessment and planning on a watershed-based schedule, with each of the State's existing 17 watershed basins being monitored once in a five-year rotation (2). The 303(d) list is a list of Category 5 impaired waters that require a TMDL. If water quality data exceed a surface water quality standard the waterbody is considered impaired and can be assigned an integrated reporting category number of 5.

Richmond County- Health Information Environmental Health Report continued

The reporting of these impaired waters is required under section 303(d) of the Clean Water Act of 1972. Integrated Reporting Categories represent varying levels of water quality standards attainment, ranging from Category 1, where monitored parameter(s) meets a water quality standard, to Category 5, where a pollutant impairs a water and a TMDL is required.

Yadkin-Pee Dee River Basin/ Hitchcock Creek Watershed			
Pee Dee River		Blewett Falls Dam to Mouth of Hitchcock Creek	6.3 miles
CATEGORY RATING	USE REASON FOR RATING	PARAMETER YEAR	
5	IMPAIRED	AQUATIC LIFE STANDARD VIOLATION	LOW DISSOLVED OXYGEN 2012

2012 North Carolina 303(d) List-Category 5

Marks Creek (Boyds Lake, City Lake, Everetts Lake)		From NC 177 To NC/SC State Line	13.3 miles
CATEGORY	RATING	USE REASON FOR RATING	PARAMETER YEAR
5	IMPAIRED	AQUATIC LIFE FAIR BIOCLASSIFICATION	ECOLOGICAL/BIOLOGICAL 1998 INTEGRITY BENTHOS

Source: (NCDENR, Division of Water Quality.)

Surface Water/Watersheds

Richmond County's surface waters are comprised of its fresh flowing water (rivers, streams and creeks), and its fresh standing waters (lakes, ponds and reservoirs). Surface waters serve many purposes that affect the quality of life in a community: sources of water for human and industrial

Richmond County- Health Information

Environmental Health Report continued

consumption, sources of food, sites for recreation, routes for transportation and commerce, and sites for disposal of byproducts and wastes of manufacturing and sewage treatment. River basins and watersheds are areas of land that drain to a particular body of water such as a lake, river, or stream. The difference between a river basin and a watershed is that in a river basin, all the water drains to a large river. In a watershed, a small area of land drains to a small stream, lake, or wetland. There can be a watershed within a river basin. Table 1 reports the watershed areas within the river basins in Richmond County. The Table also reports the surface water classifications as assigned by the NC Division of Water Quality.

All waters must at least meet the standards for **Class C** (fishable / swimmable) waters. The other primary classifications provide additional levels of protection for primary water contact recreation (**Class B**) and drinking water (Water Supply **Classes I** through **V**).

Class C

Waters protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner.

Class B

Waters protected for all **Class C** uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.

Water Supply I (WS-I)

Waters protected for all **Class C** uses plus waters used as sources of water supply for drinking, culinary, or food processing purposes for those users desiring maximum protection for their water supplies. **WS-I** waters are those within natural and undeveloped watersheds in public ownership. All **WS-I** waters are **HQW** by supplemental classification.

Water Supply II (WS-II)

Waters used as sources of water supply for drinking, culinary, or food processing purposes where a **WS-I** classification is not feasible. These waters are also protected for **Class C** uses. **WS-II** waters are generally in predominantly undeveloped watersheds. All **WS-II** waters are **HQW** by supplemental classification.

Water Supply III (WS-III)

Waters used as sources of water supply for drinking, culinary, or food processing purposes where a more protective **WS-I** or **II** classification is not feasible. These waters are also protected for **Class C** uses. **WS-III** waters are generally in low to moderately developed watersheds.

Richmond County- Health Information

Environmental Health Report continued

Water Supply IV (WS-IV)

Waters used as sources of water supply for drinking, culinary, or food processing purposes where a **WS-I, II** or **III** classification is not feasible. These waters are also protected for **Class C** uses. **WS-IV** waters are generally in moderately to highly developed watersheds or Protected Areas.

Water Supply V (WS-V)

Waters protected as water supplies which are generally upstream and draining to **Class WS-IV** waters or waters used by industry to supply their employees with drinking water or as waters formerly used as water supply. These waters are also protected for **Class C** uses.

Class WL

Freshwater Wetlands are a subset of all wetlands, which in turn are waters that support vegetation that is adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. These waters are protected for storm and flood water storage, aquatic life, wildlife, hydrologic functions, filtration and shoreline protection.

Class SC

All tidal salt waters protected for secondary recreation such as fishing, boating, and other activities involving minimal skin contact; fish and noncommercial shellfish consumption; aquatic life propagation and survival; and wildlife.

Class SB

Tidal salt waters protected for all **SC** uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.

Class SA

Tidal salt waters that are used for commercial shellfishing or marketing purposes and are also protected for all **Class SC** and **Class SB** uses. All **SA** waters are also **HQW** by supplemental classification.

Class SWL

These are saltwaters that meet the definition of coastal wetlands as defined by the Division of Coastal Management and which are located landward of the mean high water line or wetlands contiguous to estuarine waters as defined by the Division of Coastal Management.

High Quality Waters (HQW)

Supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, primary nursery areas designated by the Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission.

The following waters are **HQW** by definition:

WS-I, WS-II, SA (commercial shellfishing), **ORW, Primary nursery areas (PNA)** or other functional nursery areas designated by the Marine Fisheries Commission, or Waters for which DWQ has received a petition for reclassification to either **WS-I** or **WS-II**.

Table 1. Richmond County Water Quality Classifications, 2012

Lumber River Basin

LOCATION	CLASS	CLASS	CLASS
Drowning Creek	WS-II	SW	HQW
Beaver Dam Creek	C		

Richmond County- Health Information Environmental Health Report continued

Table 1. Richmond County Water Quality Classifications, 2012 continued

Yadkin River Basin

LOCATION	CLASS	CLASS	CLASS
Pee Dee River(To Blewett Falls Lake)	WS-IV	B	CA
Pee Dee River (Blewett Falls Dam to NC/SC State Line)	C		
Naked Creek	WS-IV		
Cartledge Creek	C		
Hitchcock Creek (McKinney Lake, Ledbetter Lake)	WS-III		
Hitchcock Creek (Midway Pond, Steeles Mill Pond)	C		
Hitchcock Creek (Roberdel Lake)	WS-III	CA	
Falling Creek (McDonald's Pond)	WS-III		
Falling Creek (Hinson Lake, Great Falls Pond)	C		
Falling Creek	WS-III	CA	
Baldwin Pond	C		
Marks Creek (Water Lake)	WS-II	HQW	CA
Marks Creek (Boyds Lake, City Lake, Everetts Lake)	C		

Source: (NC DENR, Division of Water Quality.)

According to the EPA Clean Water Act, the water quality standards have three elements: the designated uses assigned to waters (e.g., swimming, the protection and propagation of aquatic life, drinking), the criteria or thresholds that protect fish and humans from exposure to levels of pollution that may cause adverse effects, and the anti-degradation policy intended to prevent waters from deteriorating from their current condition. After setting standards, states assess their waters to determine the degree to which these standards are being met. To do so, states may take biological, chemical, and physical measures of their waters; sample fish tissue and sediments; and evaluate land use data, predictive models, and surveys. States are required to place their assessed waters in one of five categories, as follows:

Table 2.

Category	Description
1	All designated uses (DU) met
2	Some, but not all, DUs met
3	Can not determine if any DUs met
4	Impaired/threatened - TMDL not needed
4a	TMDL completed
4b	TMDL alternative
4c	Non-pollutant causes
5	Impaired/threatened by pollutant - TMDL needed

Source: (EPA, National Water Quality Assessment Report.

Richmond County- Health Information

Environmental Health Report continued

The assessed waters are rated by the states as "good" if the water fully supports all of the designated uses. Waters are rated as "threatened" if they do currently support all of the designated uses, but one or more of those uses may become impaired in the future (i.e., water quality may be exhibiting a deteriorating trend) if pollution control actions are not taken. Waters rated as "impaired" by the states cannot support one or more of their designated uses. Causes of impairment include chemical contaminants (such as PCBs, metals, and oxygen-depleting substances), physical conditions (such as elevated temperature, excessive siltation, or alterations of habitat), and biological contaminants (such as bacteria and noxious aquatic weeds). Investigations are completed to identify where pollutants or stressors (causes of impairment) are coming from. These sources of impairment are the activities, facilities, or conditions that generate the pollutants that keep waters from meeting the criteria adopted by the states to protect designated uses. Sources of impairment include, for example, municipal sewage treatment plants, factories, storm sewers, modification of hydrology, agricultural runoff, and runoff from city streets. Table 3 ("EPA, Watershed, Tracking, and Environmental Results") below summarizes the assessment report for the watershed areas in Richmond County. Noted are areas of impairment which are found to be caused by ecological/biological integrity benthos, aquatic weeds, and mercury in the fish tissue. Also noted in the summary, for the areas of impairment, TMDL is needed. TMDL (Total Maximum Daily Load), is a calculation of the maximum amount of a pollutant that can be present in a segment and still allow attainment of water quality standards.

Assessment Summary for Reporting Year 2010 North Carolina Lower Pee Dee Watershed

<u>Waterbody Name</u>	<u>Waterbody ID</u>	<u>Location</u>	<u>Map</u>	<u>Waterbody Type</u>	<u>Size</u>	<u>Units</u>	<u>Status</u>	<u>State TMDL Development Status</u>
Bailey Creek	NC13-42-1-3	From Source To North Fork Jones Creek	Waterbody Map	Stream	2.0	Miles	Good	
Beaver Dam Creek	NC13-39-8-7	From Source To Rocky Fork Creek	Waterbody Map	Stream	5.2	Miles	Good	
Bones Fork Creek (Lake Baggett)	NC13-39-5	From Source To Hitchcock Creek	Waterbody Map	Freshwater Lake	12.2	Acres	Good	
Cartledge Creek	NC13-35	From Source To Pee Dee River	Waterbody Map	Stream	10.2	Miles	Good	
Falling Creek	NC13-39-12-(7.5)	From A Point 1.4 Miles Downstream Of Richmond County Sr 1640 To Rockingham Water Supply Intake	Waterbody Map	Stream	.6	Miles	Impaired	TMDL needed
Hitchcock Creek (Mckinney Lake, Ledbetter Lake)	NC13-39-(1)	From Source To A Point 0.5 Mile Downstream Of Richmond County Sr 1442	Waterbody Map	Stream	10.0	Miles	Impaired	TMDL needed
Hitchcock Creek (Midway Pond, Steeles Mill Pond)	NC13-39-(10)	From Dam At Roberdel Lake To Pee Dee River	Waterbody Map	Stream	11.3	Miles	Good	
Jones Creek	NC13-42	From Source To Pee Dee River	Waterbody Map	Stream	12.5	Miles	Good	
Marks Creek (Boyds Lake, City Lake, Everetts Lake)	NC13-45-(2)a	From Dam Of Lower Water Lake To Nc 177	Waterbody Map	Stream	5.4	Miles	Good	
Marks Creek (Boyds Lake, City Lake, Everetts Lake)	NC13-45-(2)b	From Nc 177 To N.C.-S.C. State Line	Waterbody Map	Stream	13.3	Miles	Impaired	TMDL needed
Mill Creek	NC13-43	From Source To Pee Dee River	Waterbody Map	Stream	11.5	Miles	Good	
North Fork Jones Creek	NC13-42-1-(0.5)	From Wadesboro Water Supply Intake To Jones Creek	Waterbody Map	Stream	7.4	Miles	Good	
North Fork Jones Creek (City Pond)	NC13-42-1-(0.3)	From A Point 1.0 Mile Downstream Of Anson County Sr 1122 To Wadesboro Water Supply Intake	Waterbody Map	Stream	.6	Miles	Good	
Pee Dee River	NC13-(34)a	From Blewett Falls Dam To Mouth Of Hitchcock Creek	Waterbody Map	Stream	6.3	Miles	Impaired	TMDL needed
Pee Dee River	NC13-(34)b	From Mouth Of Hitchcock Creek To N.C.-S.C. State Line	Waterbody Map	Stream	9.4	Miles	Good	
South Fork Jones Creek	NC13-42-2	From Source To Jones Creek	Waterbody Map	Stream	15.0	Miles	Good	

Richmond County- Health Information Environmental Health Report continued

Drought

In 2008, Governor Easley signed, what is known as the Drought Bill. It includes provisions to improve water use data; reduce drought vulnerability; and allow for quicker response to water shortage emergencies. Soon after, the North Carolina Drought Management Advisory Council was given the responsibility for issuing drought advisories. The drought advisories are to provide accurate and consistent information to assist local governments and other water users in taking appropriate drought response actions in specific areas of the state that are exhibiting impending or existing drought conditions. The advisories are based on the highest drought designation that applies to at least twenty five percent (25%) of the land area of the county. Listed below in Table 4 are the drought conditions for 2009-2013.

Richmond County Water Systems Summary 2009-2013

Table 4

	CURRENT ADVISORY	RESTRICTIONS	AFFECTED POPULATION	WEEKLY WATER USAGE(GAL)
2009	MODERATE	HAMLET/ROCKINGHAM/RICHMOND VOLUNTARY WATER RESTRICTIONS	41,498	ELLERBE/HAMLET 1,054,686 RICHMOND/ROCKINGHAM 2,808,257
2010	ABNORMALLY DRY	HAMLET/ROCKINGHAM/RICHMOND VOLUNTARY WATER RESTRICTIONS	41,498	ELLERBE/HAMLET 1,094,600 RICHMOND/ROCKINGHAM 2,866,429
2011	ABNORMALLY DRY	NONE	41,498	ELLERBE/HAMLET 1,094,600 RICHMOND/ROCKINGHAM 2,866,429
2012	NONE	NONE	41,498	ELLERBE/HAMLET 1,094,600 RICHMOND/ROCKINGHAM 2,866,429
2013	NONE	NONE	41,498	ELLERBE/HAMLET 1,147,143 RICHMOND/ROCKINGHAM 2,901,857

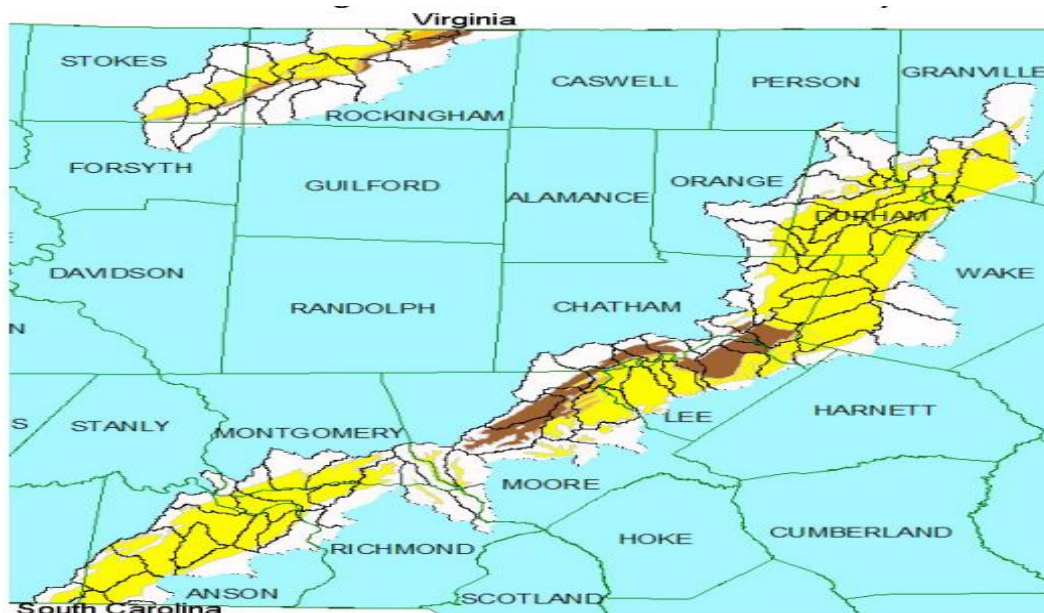
Source: (NC DENR Division of Water Resources.)

Fracking

Natural gas extraction by hydraulic fracturing involves drilling a well vertically and then horizontally into the shale formation. The natural gas production company perforates the well and then pumps fracturing fluid into the well under pressure to fracture the shale. Fracturing fluids are composed primarily of water and a proppant (such as sand) to keep the fractures open. Water and sand represent between 98 percent and 99.5 percent of the fracturing fluid. The fluid also includes chemical additives used to condition the water. Additives may be used to thicken or thin the fluid, prevent corrosion of the well casing, kill bacteria or for other purposes. The exact makeup of fracturing fluid varies from company to company and may also be adjusted based on conditions at the individual well site. Several hundred chemical compounds have been identified by the industry as chemicals that have been used in fracturing fluid. Any single fracturing fluid generally contains between 6 and 12 chemical additives. Some chemicals that have been used in fracturing fluids, such as diesel fuel, have raised concern because of potential health impacts. EPA has discouraged use of diesel fuel in hydraulic fracturing. North Carolina's potential shale gas resource comes from the Sanford sub-basin of the Deep River geologic basin — a 150-mile-long area that runs from Granville County southwestward across Durham, Orange, Wake, Chatham, Lee, Moore, Montgomery, Richmond, Anson and Union counties into South Carolina. The Deep River Basin is one of several similar geologic formations in North Carolina that cover approximately 785,000 acres.

Richmond County- Health Information Environmental Health Report continued

Sanford Sub-Basin of the Deep River Geologic Basin



Source: (NCDENR.)

Fish Consumption Advisories

Fish are an important part of a healthy diet. They are a lean, low-calorie source of protein. However, some fish caught in some lakes, rivers, and estuaries may contain chemicals that could pose health risks. When contaminant levels are unsafe, consumption advisories may recommend that people limit or avoid eating certain species of fish caught in certain areas. A fish consumption advisory is a recommendation issued to help protect public health. An advisory may be issued for the general public, including recreational and subsistence fishers, or it may be issued specifically for sensitive populations, such as pregnant women, nursing mothers, and children. An advisory for a specific waterbody or water-body type may cover more than one affected fish species or chemical contaminant. Advisories apply to locally-caught fish and sometimes apply to fish purchased in stores and restaurants. Most advisories involve five primary contaminants: mercury, PCBs, chlordane, dioxins, and DDT. These chemical contaminants persist for long periods in sediments where bottom-dwelling animals accumulate and pass them up the food chain to fish. Levels of these contaminants may increase as they move up the food chain, so top predators in a food chain (such as largemouth bass or walleye) may have levels several orders of magnitude higher than the water. The following information are consumption advisories that relate to Richmond County.

Richmond County- Health Information Environmental Health Report continued

Yadkin-Pee Dee River System

Affected Counties: Davidson, Montgomery, Rowan, Stanly

Site: Falls Reservoir, High Rock Lake, Lake Tillery

Pollutant: Polychlorinated biphenyls (PCBs)

Date Issued: March 13, 2013

Advisory: Levels of chemicals called PCBs were found above the state action level (0.05 mg/kg) in catfish species larger than 18 inches (450 mm) in the Yadkin-Pee Dee River System. Prior studies of catfish in the state's lakes and rivers have identified elevated levels of mercury south and east of U.S. Highway I-85. The recommended number of meals for catfish as a result of the mercury advisory is also protective of potential health effects associated with eating catfish contaminated with PCBs in this lake. The recommended mercury advisory for catfish in this area is: Pregnant women, nursing women, women who may become pregnant, and children under age 15 should not eat any catfish from this lake. Other people should not eat more than one meal a week. A meal of fish is approximately six (6) ounces of uncooked fish.

Statewide Advisories

Pollutant: Mercury

Date Issued/Updated: April 2, 2008

Advisory:

Women of Childbearing Age (15-44 years), Pregnant Women, Nursing Women, and Children under 15:

Do not eat fish high in mercury, including largemouth bass caught in the state. Eat up to two meals per week of fish low in mercury. A meal is 6 ounces of uncooked fish for adults, or 2 ounces of uncooked fish for children under 15.

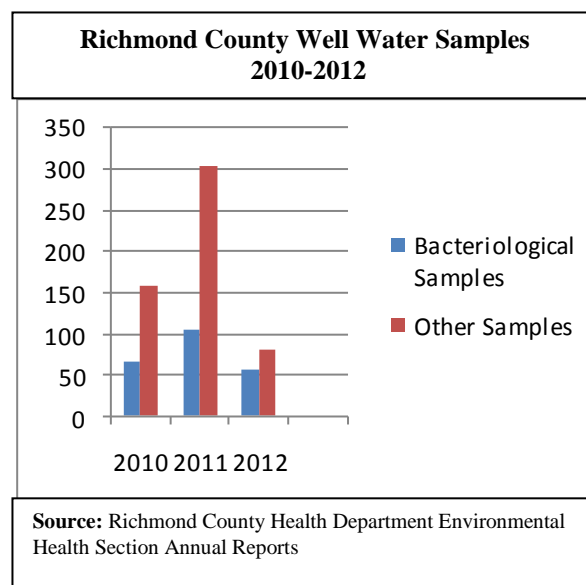
All Other Individuals:

Eat no more than one meal per week of fish high in mercury, including largemouth bass caught in the state. Eat up to four meals per week of fish low in mercury. A meal is 6 ounces of uncooked fish for adults, or 2 ounces of uncooked fish for children under 15.

Well Water

The North Carolina State Laboratory for Public Health analyzes samples of drinking water from wells and other sources for the presence of microorganisms, pesticides, inorganic, nitrate, nitrite, petroleum products and volatile organic compounds. Samples from private wells must be submitted through a local health department. The State Laboratory conducts all analyses of water samples from Richmond County.

Richmond County- Health Information Environmental Health Report continued



Well Water Contamination

Volatile organic chemical (VOC) are compounds that have high enough vapor pressures under normal conditions to significantly vaporize and enter the atmosphere. Volatile organic compounds are numerous and varied. Although ubiquitous in nature and modern industrial society, they may also be harmful or toxic. VOCs, or subsets of the VOCs, are often regulated. VOCs are responsible for a number of adverse health effects especially for nursing and pregnant mothers. Many of these compounds were not known to be harmful until the late 1960s and it was some time before regular testing of groundwater identified these substances in drinking water sources. Richmond County identified an area within the county with contamination in April 2008. As of October 2013, approximately 600 samples have been taken. Of the 600 initial sample 19 exceeded the EPA MCL for DBCP (1,2-Dibromo-3-chloropropane), 1 exceeded the EPA MCL for DCE (1,1-Dichloroethene), 1 exceeded the EPA MCL for DCA (1,2-Dichloroethane), and 1 exceeded the EPA MCL for TCE (Trichloroethene). Contaminated sites are currently being monitored every two to three months and adjacent sites with any detection of VOC's will complete it's sampling unless requested in the future by the landowner.

In 2010 the Richmond County Commissioners voted to extend the Richmond County water lines to the residents of the contaminated area. This project was divided up into two phases. Phase 1 started in January 2009, with the residents receiving water in July 2011. This phase stretched about eight miles, and covered 111 residences. Phase 2 started in November 2012 and is currently being installed. This phase will provide access to about 50 to 60 more residences in the area.

Richmond County- Health Information Environmental Health Report continued

Carbon Monoxide

Carbon monoxide (CO) is called the silent killer because it cannot be seen, smelled or tasted, and it does not irritate the skin, eyes or lungs. Most accidental carbon monoxide poisonings occur from

CO released by heaters or cars. People exposed to the gas are unaware they are breathing in the CO until they get sick. About 600 accidental deaths due to CO poisoning occur each year in the United States.

Session Law 2013-413 (formerly House Bill 74) requires lodging establishments to install carbon monoxide

detectors meeting ANSI/UL 2034 or ANSI/UL 2075 in every enclosed space having a fossil fuel burning heater, appliance, or fireplace and in any enclosed space, including a sleeping room, that shares a common wall, floor, or ceiling with an enclosed space having a fossil fuel burning heater, appliance, or fireplace by October 1, 2013. The law allows use of either battery-operated or electric carbon monoxide detectors to meet that deadline, but further requires carbon monoxide detectors to receive primary power from the building's electrical wiring and have battery backup power by October 1, 2014.

Under S.L. 2013-413, *lodging establishment* means any hotel, motel, tourist home, or other establishment permitted under authority of G.S. 130A-248 to provide lodging accommodations for pay to the public. That includes hotels, motels, bed and breakfast inns, bed and breakfast homes, summer camps, primitive camps, and resident camps. Please note that this law does not apply to institutions since they are under authority of G.S. 130A-235 and not permitted under authority of G.S. 130A-248. Fossil fuel burning heater, appliance, or fireplace includes anything in a building that burns combustible materials to produce light, heat, refrigeration, or air conditioning—including, but not limited to, furnaces, pool heaters, water heaters, space heaters, cooking equipment, boilers, clothes dryers, fireplaces, pilot lights, and light fixtures.

Environmental Tobacco Smoke

North Carolina does not have a complete inventory of smoke free workplaces. However, WorkingSmokeFree.com is a website where workplaces may voluntarily register their smoke free status. There are no workplaces in Richmond County on record as being officially smoke free (54). The Division of Public Health submitted three administrative rules that prohibit smoking in restaurants and bars to the Commission for Public Health for adoption. These three rules (10A NCAC 39C .0101-.0103) are required in order to implement G.S. 130A-497, An Act to Prohibit Smoking in Certain Public Places and Certain Places of Employment, which was signed by the governor on May 19, 2009. The bill became effective on January 2, 2010. The law requires enclosed areas of almost all restaurants and bars to be smoke-free effective January 2, 2010. Smoking is also banned in enclosed areas of hotels, motels, and inns, if food and drink are prepared there.

Smoking is permitted in: twenty percent (20%) of guest rooms in lodging establishments; cigar bars that meet specific requirements; private clubs - country clubs or organizations with selected membership - which are operated by the membership, have non-profit status, and provide restricted food and lodging services; establishments that are exempt from the state's sanitation laws.

Richmond County- Health Information Environmental Health Report continued

Current smoking prevalence declined most markedly from 2005 to 2011 among adults aged 18–24 years (from 24.4% to 18.9%), and this age group, which had the highest prevalence in 2005, now has the lowest of any group aged <65 years. Although overall smoking prevalence declined slightly since 2005, it was 19.0% in 2011, higher than the HP2020 target of 12% for all U.S. adults. The 2009 Family Smoking Prevention and Tobacco Control Act, which granted the Food and Drug Administration the authority to regulate the manufacture, distribution, and marketing of tobacco products. Although not affecting these 2011 findings, the federal mass media campaign conducted in early 2012, which included graphic personal stories on the adverse health impact of smoking, might contribute to future decreases in prevalence. Although comprehensive tobacco control programs have been effective in decreasing tobacco use in the United States, they remain underfunded. In fiscal year 2011, CDC recommended appropriate annual funding levels for each state comprehensive tobacco control program. However, only two states funded tobacco control programs at CDC-recommended levels, whereas 27 states funded at <25% of these levels (CDC, unpublished data, 2012). Despite increases in excise tax revenue, state funding for tobacco control programs has actually decreased during the past 5 years. Full implementation of comprehensive tobacco control programs at CDC-recommended funding levels might result in a substantial reduction in tobacco-related disease and death and billions of dollars in savings from averted medical costs and lost productivity.

Tobacco-Free Schools

One factor greatly affecting indoor air quality in schools is the school district's or Board of Education's school tobacco policies. Having a tobacco-free school environment is important in achieving physical, mental, and social health goals for students, staff, the school and the district. On July 18, 2007, Governor Easley signed Senate Bill 1086, which requires all North Carolina public schools to be 100% tobacco-free by August 2008.

Land Contamination

Superfund Sites

Richmond County currently has one site (Charles Macon Lagoon and Drum Storage Site) on EPA's National Priorities List (NPL), commonly known as the Federal "Superfund" Program List. Superfund sites are some of the nation's worst toxic waste sites, made eligible by law for long-term remediation. North Carolina currently has 38 superfund sites, just above the national average for all states. The 38 North Carolina Superfund Sites are scattered statewide in 23 counties. The Charles Macon site operated as a waste oil recycling and antifreeze manufacturing facility from 1979 to 1982. The site is located in Cordova in Richmond County. The overall site is ranked 60% more hazardous, with the National Average at 50%.

Richmond County- Health Information Environmental Health Report continued

Brownfields

The US EPA began the Brownfields Initiative in 1995 to encourage the clean up and reuse of abandoned contaminated properties. A Brownfields site is any real property that is abandoned, idle or underutilized where environmental contamination, perceived or real, hinders redevelopment.

Loans are very difficult to obtain when property comes with potential environmental cleanup liability; the NC Brownfields program aims to alleviate that liability for possible developers. As of October 4, 2013, 254 Brownfields Agreements had been finalized in North Carolina; there were 156 active eligible projects and 21 more pending. One active eligible project located in Richmond County (Table 5).

Table 5. Active Eligible Brownfields Projects in Richmond County

Project Name	Address	Location
Tartan Marine	South NC Highway 177	Hamlet

Source: (NC Department of Environment and Natural Resources. Division of Waste Management. North Carolina Brownfields Project.)

Inactive Hazardous Sites

In 1987 the North Carolina General Assembly enacted the North Carolina Inactive Hazardous Sites Response Act, establishing a program to protect the public and the environment from uncontrolled and unregulated hazardous waste sites that are not addressed by other environmental programs. The Inactive Hazardous Site Branch (IHSB) of DENR can deal with any site where hazardous substance or waste contamination exists that isn't already under the jurisdiction of another program. IHSB assesses sites, maintains the list of current sites and oversees the remediation process. There are nine such sites in Richmond County (Table 6).

Table 6. Inactive Hazardous Sites in Richmond County

Site Name	Address	City
ATKINSON STREET CONTAMINATION	109 ATKINSON STREET	HAMLET
GA-PACIFIC CORP	HWY 177 S	HAMLET
MARY CHAPPEL RESIDENCE	1061 HWY 177	HAMLET
NC DOT ASPHALT SITE #3/BROWN PAVIN	INTER. OF SR 1305 AND HW	ROCKINGHAM
RICHMOND APPAREL/FRUIT OF THE	HWY 74	ROCKINGHAM
SALVAGE OIL OF AMERICA	1227 MCLEOD STREET	ROCKINGHAM
SOLENE INDUSTRIAL LUBRICANTS	109 AIRPORT RD	ROCKINGHAM
TARTAN MARINE PROPERTY	HWY 177 AND SR 2032	HAMLET
WINDBLOW PRIVATE SUPPLY WELL	2691 DERBY ROAD	ELLERBE

Source: (NC Department of Environment and Natural Resources. Division of Waste Management. Superfund Section. Inactive Hazardous Sites Branch.)

Richmond County- Health Information Environmental Health Report continued

Childhood Blood Lead Levels

According to statistics provided by the State, the percentage of Richmond County children screened for lead has been above the State average for children aged one and two years for the two most recent reporting periods (Table 7). Table 8 presents the screening results for children ages six months to six years.

Table 7. Richmond County Childhood Lead Screening Results, Ages 1 and 2 years

Year	Location		Target Population	No. Screened	% Screened	% Screened among Medicaid	No. >10 µg/dL	% >10 µg/dL
2011	VII.	Richmond	1,219	788	64.6	79.8	4	0.5
	VIII.	NC	249,087	129,558	52.0	80.7	461	0.4
2010	IX.	Richmond	1,296	735	56.7	79.0	4	0.5
		NC	257,543	132,014	51.3	81.1	519	0.4
2009	X.	Richmond	1,383	889	64.3	82.9	6	0.7
		NC	261,644	129,395	49.5	79.9	583	0.5
2008	XI.	Richmond	1,360	846	62.2	81.4	6	0.7
	XII.	NC	258,532	121,023	46.8	77.6	654	0.5

Source: (NC Division of Environmental Health. Children's Environmental Health Branch.)

Richmond County- Health Information Environmental Health Report continued

Solid Waste Management

Table 8. Richmond County Childhood Lead Screening Results, Ages 6 Months to 6 years

Year	Location	No. Screened	No. Confirmed 10-19µg/dL	% Confirmed 10-19 µg/dL	No. Confirmed >20 µg/dL	% Confirmed > 20 µg/dL
2011	Richmond	961	2	0.2	0	-
	NC	156,039	105	0.07	36	0.02
2010	Richmond	848	1	0.12	0	0.11
	NC	162,060	146	0.1	24	0.01
2009	Richmond	1024	4	0.4	0	-
	NC	160,713	143	0.09	38	0.02
2008	Richmond	940	0	-	0	-
	NC	152,222	181	0.1	36	0.02

Source: (NC Division of Environmental Health. Children's Environmental Health Branch.)

County Solid Waste Management

In FY 2011-2012, Richmond County managed 78,410.29 tons of solid waste for a rate of 1.69 tons per capita. This figure represented a increase from the comparable per capita rate for FY 2010-2011. Since FY 1991-1992 to FY 2012 the comparable per capita rate has increased 25%.

Landfills, Waste Drop-Off, and Recycling

Richmond County currently operates ten convenience sites for household and recycled products. Additionally, the county has two active facilities and three inactive/closed facilities. Table 9 lists these facilities, their status, and addresses.

Richmond County- Health Information

Environmental Health Report continued

Table 9. Solid Waste Facilities in Richmond County, October 2013

Facility Type	Status	Name	Address
LF	Inactive	Richmond County Landfill	SR1306 Rockingham
LF	Inactive	City of Rockingham Demo Site	US Hwy 1 N Rockingham
LF	Inactive	Seaboard CL Railroad	Campbell Road Hamlet
LF	Active	Town of Hamlet	Off US 74 Hamlet
Trans Rockingham	Active	Richmond County Transfer Station	191 Walter Kelly Road
CS	Active	Airport Site	125 Hatcher Road Hamlet
CS	Active	Cordova Site	168 First Street Cordova
CS Rockingham	Active	Diggs Site	1682 Old Cheraw Hwy
CS	Active	Ellerbe Site	250 Bennett Road Ellerbe
CS Hamlet	Active	Hamlet Site	800 East Hamlet Ave.
CS	Active	Hoffman Site	2687 N. Hwy #1 Hoffman
CS Rockingham	Active	Jackson Site	171 Jackson Road
CS Mangum	Active	Mangum Site	250 Pee Dee Church Road
CS Road Ellerbe	Active	Plainview Site	121 Rummage Pack House
CS Rockingham	Active	US #1 Site	849 N. US 1 Hwy

Key: LF= Landfill, Trans=Transfer Station, CS=Convenience Site

Source: (Richmond County Solid Waste Division. NC Department of Environment and Natural Resources. Division of Waste Management. Solid Waste Section. Facility Lists.)

Wastewater Management

According to 2010 Census data, Richmond County reports a total population of 46,639. The Census reports 18,218 housing units with 2 persons per household. Richmond County reports an estimate of 8,510 housing units on a year-round public sewer system and an estimated 9,708 residences had onsite waste water systems. Additional housing units (<1%) had some other form of sewage disposal, including individual sewer pipes or outhouses.

Richmond County- Health Information Environmental Health Report continued

The cities of Rockingham, Hamlet and Ellerbe are responsible for the wastewater treatment in Richmond County. There are three wastewater treatment plants in Richmond County: the Rockingham plant discharges into the Pee Dee River, and the Hamlet plant into Marks Creek and the Ellerbe plant discharges into Tom Creek.

On-Site Wastewater Management

Local health departments are charged with inspecting and permitting on-site wastewater facilities. From January 2009 – October 2013, the Environmental Health Section of the Richmond County Health Department made a reported 4, 314 site visits, issued 350 new construction permits and issued 7 citations for violations.

Drinking Water

According to the North Carolina Public Water Supply Section, approximately 18,000 Richmond County year-round housing units (83%) were on a water source supplied by a city or county water department, a water district, a private water company, or a well serving six or more housing units. Another 3,800 units (17%) had an individual well as the primary source of water.

Drinking Water Systems

Currently, the EPA lists 16 water systems in Richmond County (80). Four are *community water systems* that together serve 46,469 people (Table 10). A community water system is a water system that serves the same people year-round. One Non-Transient Non-Community water system is listed and serves 43 people (Table 11). Non-Transient Non-Community water system is a water system that serves the same people, but not year-round. Eleven Transient Non-Community water systems are listed and together serve 611 people (Table 12). Transient Non-Community water systems are water systems that do not consistently serve the same people.

Table 10. Richmond County Community Water Systems (October 2013)

<u>Water System Name</u>	<u>Number Served</u>	<u>Primary Water Source Type</u>
Ellerbe Town Of	1497	Surface Water
Hamlet Water System	9630	Surface Water
Richmond County Water System	25410	Surface Water
Rockingham, City of	9932	Surface Water

Source: (Environmental Protection Agency. Envirofacts. Safe Drinking Water Information System(SDWIS). Safe Drinking Water Query. County Search.)

Richmond County- Health Information Environmental Health Report continued

Table 11. Richmond County Non-Transient Non-Community Water System (October 2013)

Water System Name	Number Served	Primary Water Source Type
Unimin Corporation	43	Groundwater

Source: (Environmental Protection Agency. Envirofacts. Safe Drinking Water Information System (SDWIS). Safe Drinking Water Query. County Search.)

Table 12. Richmond County Transient Non-Community Water Systems (October 2013)

Water System Name	Number Served	Primary Water Source Type
Camp McCall Fire Department	25	Groundwater
Church of God of Prophecy	25	Groundwater
Grace Chapel Church	50	Groundwater
Greater Diggs AME Zion Church	50	Groundwater
Joy Freewill Baptist Church	75	Groundwater
Marks Creek Presbyterian Church	50	Groundwater
Pleasant Grove Baptist Church	50	Groundwater
Saron Baptist Church	50	Groundwater
Southern Products and Silica Co	25	Groundwater
Travel Resorts of America Inc	186	Groundwater
Travel Resorts of America Forest Site	25	Groundwater

Source: (Environmental Protection Agency. Envirofacts. Safe Drinking Water Information System(SDWIS). Safe Drinking Water Query. County Search.)

Richmond County- Health Information Environmental Health Report continued

Drinking Water Standards Violations

The US EPA records violations of drinking water standards reported to it by states in its Safe Drinking Water Information System (SDWIS). It records violations as either *health-based* (contaminants exceeding safety standards or water not properly treated) or *monitoring- or reporting-based* (system failed to complete all samples or sample in a timely manner, or had another non-health related violation). There were five reported health-based violations in five water systems in the period that is recorded within the last ten years by North Carolina to the EPA (Table13).

Table 13. Richmond County Public Drinking Water Systems Reporting Health-Based Violations, 2010-2013

System Name	Dates	Type of Violation	Contaminant
Subject A	Oct 2012 – Dec2013	MCL average	Total Haloacetic Acids
Subject B	Jan 2011 ~ Dec 2011	MCL monthly	Nitrate
Subject C	Jan 2010- Dec 2010	MCL monthly	Coliform
Subject D	Apr 2010- Jun 2010	MCL monthly	Coliform
Subject E	Jul 2011- Jul 2011	MCL, Monthly	Nitrate

*Each System was giving the name subject to protect their identity.

Source: (Environmental Protection Agency. Envirofacts. Safe Drinking Water Information System (SDWIS). Safe Drinking Water Query. County Search.)

Richmond County- Health Information

Environmental Health Report continued

Food-, Water-, and Vector- Borne Diseases

A number of human diseases and syndromes are caused or exacerbated by contamination of the natural environment with microbes or chemicals, or by animal vectors. Several of these conditions are among the illnesses that must be reported to health authorities. A number of food-, water-, and vector- borne diseases are of increasing importance because they are either rare but becoming more prevalent, or spreading in geographic range, or becoming more difficult to treat. Among these diseases are Shiga toxins producing *E.coli*, salmonellosis, Lyme disease, West Nile virus infection, Eastern equine encephalitis, and rabies. Table 14 lists the number of cases of major reportable food-, water- and vector-borne diseased reported in Richmond County from 2008 to 2012. From 2008-2012, there were 76 cases of Salmonellosis, 12 cases of Campylobacter, 2 cases of Shigellosis, 0 cases of Rocky Mountain Spotted Fever, and 0 cases of Cryptosporidiosis in Richmond County.

Table 14. Richmond County Reported Cases of Food-, Water-, and Vector- Borne Diseases in Humans, 2008-2012

	2008-2009	2009-2010	2010-2011	2011-2012
Campylobacter	1	1	8	2
Cryptosporidiosis	0	0	0	0
Rocky Mountain spotted fever	0	0	0	0
Salmonellosis	18	20	18	20
Shigellosis	1	1	0	0

Source: (Richmond County Health Department Communicable Disease Annual Statistics Fiscal Years July 1, 2005 through June 30, 2012.)

Arboviral Diseases

Arboviral diseases are viral diseases transmitted from an animal host to humans (and sometimes other animals) by the bite of an arthropod, usually a tick or biting fly such as a mosquito. Mosquito-borne diseases are of particular significance in communities where there is a lot of water, since that is the environment in which they breed. Historically, mosquito-transmitted diseases, most notably Eastern Equine Encephalitis (EEE) and LaCrosse Encephalitis (LAC) are endemic in North Carolina. Eastern Equine Encephalitis is a disease of the central nervous system that affects horses and humans. It is transmitted by a species of mosquito that lives in marshes and swamps and feeds on birds in which the virus multiplies. The presence of the disease is monitored by the sentinel flock method. Eastern Equine Encephalitis cases are most severe in children and in people over the age of fifty. From 2003 to 2012, six cases were reported from five counties. La Crosse Encephalitis is the most common arbovirus affecting North Carolinians (DHHS). Transmission occurs most frequently after being bitten from an infected mosquito. LAC is a disease of the central nervous system with complications ranging from headaches and fever, to tremors and coma. Most cases of La Crosse have occurred in the mountain contains of North Carolina, primarily in children. From 2003 to 2013, 43 were reported from 26 counties. West Nile Virus (WNV), however, is relatively new. It first appeared in the US in 1999 and has spread across the state. Most cases have been reported in the piedmont counties. Seventy five percent of cases from 2003 to 2013 of WNV cases are seen most frequently in people over forty years old. From 2003 to 2013, 43 cases of WNV were reported from five different counties. Both WNV and EEE are considered emerging infectious diseases because their incidence is growing dramatically in the US. There are vaccines for both for horses, but not for humans.

Richmond County- Health Information Environmental Health Report continued

Rabies

The Communicable Disease Control Branch of the NC Department of Public Health reports cases of rabies. Table 15 lists the number of cases of rabies in animals in Richmond County from 2008 through 2012.

	Bat	Cat	Cow	Dog	Fox	Skunk	Raccoon
2012	0	0	0	1	0	0	0
2011	0	1 (Bobcat)	0	0	0	0	1
2010	0	0	0	0	0	0	1
2009	0	0	0	0	1	0	1
2008	0	2 (1 Bobcat & 1 feral cat)	0	0	0	0	0

Table 15. Richmond County Rabies Cases 2008-2012

Source: (NC Department of Public Health. Epidemiology. Communicable Disease Control. Rabies.)

Richmond County

PRC Data

Report Card

FirstHealth
OF THE CAROLINAS

Richmond County PRC Data Report Card

Methodology

FirstHealth of the Carolinas chartered a random-digit dial survey with Professional Research Consultants (PRC) to obtain county level data for a community health needs assessment. This survey instrument is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues. The final survey instrument was developed by FirstHealth of the Carolinas and PRC.

The study area for the survey effort includes the primary residential ZIP codes of Hoke, Montgomery, Moore and Richmond counties in North Carolina. Richmond County data can be located within the green columns. A telephone methodology, one that incorporated both landline and cell phone interviews, was employed. The sample design used for this effort consisted of 1,316 interviews in all, including a random sample of 1,200 individuals age 18 and older in the Total Area, as well as an additional 116 “oversample” interviews among African American and Hispanic residents to ensure better sample sizes for these populations (this resulted in a total of 173 interviews conducted among African American respondents, 143 among Hispanic respondents). The final distribution by county was as follows: 561 interviews in Moore County; 349 interviews in Richmond County; 234 interviews in Hoke County; and 172 interviews in Montgomery County.

Once the interviews were completed, these were weighted in proportion to the actual population distribution so as to appropriately represent the Total Area as a whole. All administration of surveys, data collection and data analysis was conducted by PRC. For statistical purposes the maximum rate of error with a sample size of 1,316 respondents is +/- 2.6 percent at the 95 percent level of confidence.

Richmond County PRC Data Report Card

Health Indicator	2007 Richmond County Rate	2011 Richmond County Rate	Regional Rate (Hoke, Moore, Montgomery, Richmond)	North Carolina
Perceive community “fair/poor”	23.4%	22.2%	16.4%	n/a
Experience “poor/fair” health overall	22.2%	27.3%	20.3%	18.1%
Experience symptoms of chronic depression	34.1%	30.7%	27.1%	n/a
Sought professional help for “mental/emotional” problems	20.6%	24.4%	21.2%	n/a
Sought professional help for “mental/emotional” problems (among those w/chronic depression)	48.3%	45.2%	47.0%	n/a
Prevalence of high Blood Pressure	43.1%	46.3%	39.9%	31.5%
Prevalence of high Blood Cholesterol	53.8%	38.6%	36.6%	40.0%
Present 1 or more Cardiovascular risk/behaviors	93.2%	95.8%	88.8%	n/a
Prevalence of Diabetes	18.8%	17.2%	17.2%	9.8%
Diagnosed borderline or pre-diabetic		5.4%	6.0%	n/a
Flu vaccine prior year (65+)	73.9%		64.7%	69.7%
Consume 2 or more fresh, frozen, canned fruit daily	39.40%	19.6%	26.0%	n/a
Consume 3 or more fresh, frozen, or canned vegetables daily	23.6%	10.5%	12.5%	n/a
Consume 2 or more whole grain bread daily	30.0%	21.6%	22.9%	n/a
Consume at least 1 sugar sweet beverage yesterday		61.1%	57.2%	n/a
Eat meals at home less than 4 times weekly		15.6%	12.3%	n/a
No leisure physical activity in past month	31.1%	30.4%	25.2%	25.7%
Sedentary	62.6%	63.3%	56.4%	n/a
Workplace within walking distance/home		21.3%	18.4%	n/a

Richmond County PRC Data Report Card continued

Health Indicator	2007 Richmond County Rate	2011 Richmond County Rate	Regional Rate (Hoke, Moore, Montgomery, Richmond)	North Carolina
Park/playground within walking distance/home		31.2%	32.5%	n/a
Can purchase healthy foods within walking distance/home		18.4%	20.9%	n/a
Healthy Weight BMI between 18.5-24.9 adults	23.5%	22.2%	28.6%	n/a
Prevalence total over weight adults BMI 25.0 or more	38.7%	77.6%	70.0%	65.3%
Prevalence obese adults BMI 30.0 or more	36.6%	36.0%	32.5%	28.6%
Overweight total (child BMI 85%) 5-17y		32.3%	35.4%	n/a
Child obesity (BMI 95%) 5-17y		24.4	20.0%	n/a
Current smokers	23.1%	31.2%	22.8%	19.7%
Cost Prevented prescriptions medicine in past year	25.1%	25.8%	18.2%	n/a
Difficulty obtaining routine medical care past year	11.9%	18.0%	11.5%	n/a
Trouble obtaining child's medical appointment in past year	12.3%	9.2%	8.1%	n/a
Have access to internet		74.0%	78.3%	n/a

Source: (Firsthealth Richmond Memorial)

- According to Firsthealth of the Carolinas, Richmond County has increased it's risk for the four listed health indicators identified within the purple boxes.
- Out of the four listed health indicators "adults BMI 25.0 or more" had the greatest increase from 38.7% in 2007 to 77.6% in 2011. Additional health resources are needed to collaborate with Firsthealth Richmond Memorial to reduce these statistics.

Richmond County
Community Health Opinion
Survey

Community Health Opinion Survey

Methodology

Primary data for the Richmond County Community Health Assessment was collected over a two-day period in May 2013. Trained interviewers administered the community health opinion survey to community residents and stakeholders at selected households throughout the County. The survey included questions related to community health problems and issues, access to healthcare and health behaviors, parenting concerns, emergency preparedness, and individual and household demographic characteristics.

Administration of the community health survey was facilitated with the assistance of The North Carolina Institute for Public Health (NCIPH), part of the UNC Gillings School of Global Public Health. Using a two-stage cluster sampling methodology developed by the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) and utilizing population-based sampling weights from each census block; this methodology allows for generalizability of the collected data to the population of Richmond County. Typically, this sampling methodology involves selection of 30 census blocks with seven randomly located interviews sites in each. However, due to the scarcity of households in some Richmond County census blocks, the sampling methodology was modified to include more census blocks with fewer interview locations per block. This ensured that a sufficient number of surveys would be collected to accurately represent County residents.

In the first stage of sampling, 40 census blocks were randomly selected with a probability proportionate to the population size with the most populated census blocks more likely to be selected. Two census blocks (clusters 12 and 13) were selected twice. The selected census blocks throughout Richmond County are shown in Figure 1. In the second stage of sampling, five random interview locations were selected in each census block. Ten households were selected in each of the census blocks (clusters 12 and 13) that were selected twice. The sample selection was conducted using a Geographic Information Systems (GIS) toolkit design by the CDC. A total of 196 interviews were completed throughout the county, just below the goal of 200 interviews (5 interviews from 40 census blocks) for a sampling success rate of 98%.

Interviewers obtained oral consent in English or Spanish before interviewing potential survey participants. Eligible participants were at least 18 years of age and a resident of the selected households. Responses were recorded at the time of interview either on paper surveys, or electronically using Magellan MobileMapper handheld computers. Tracking forms indicated that contact was attempted at 399 households and made at 246 households, of which 196 resulted in completed surveys, indicating that the contact rate was 49.2% (completed interviews out of housing units where contact was attempted) and the cooperation rate was 83.1% (completed interviews out of housing units where contact was made). Data were analyzed in SAS 9.3 (Cary, NC), and results for each question in the community health survey are reported as weighted proportions with their 95% confidence intervals (CI). Survey weights were calculated using methods described in the CDC Community Assessment for Public Health Emergency Response (CASPER) toolkit, which incorporates the total number of households in the sampling frame, the number of households in the census block, and the number of interviews collected in each census block. These weights were used to calculate the standard error for each proportion, from which 95% CIs were derived. These confidence intervals should be interpreted as the interval that contains the true value in 95% of repeated samples. Qualitative data were summarized into

Methodology Continued

categorical variables where appropriate. These confidence intervals are displayed on all figures as error bars.

This report contains the results of the community health opinion survey, for use as primary data within the 2013 Richmond County Community Health Assessment. Interpretations of these data are generalizable at the county level, because the sampling method collects responses from residents throughout the county in weighted census blocks. The limitation of this methodology is that stratifications to a finer scale, or within subpopulations of the county, results in imprecise estimates with no meaningful interpretive value. Compared to 2010 Census estimates, demographic information from survey respondents indicate that women were oversampled (57% of respondents vs. 51% of residents) but the sample was otherwise demographically very similar to overall county residents (Table 1).

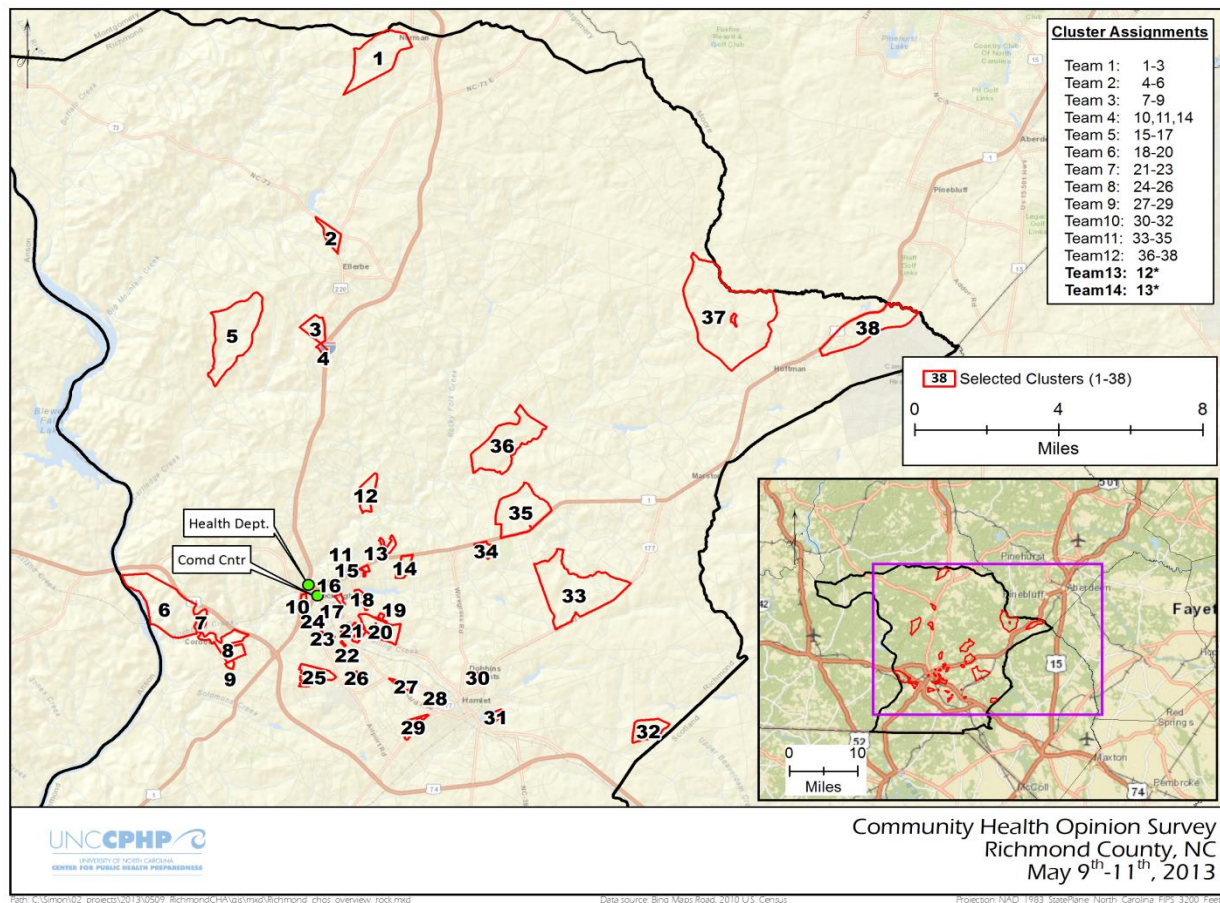


Figure 1. Census blocks selected for sampling within Richmond County.

Methodology continued

Characteristic	Weighted Percent ¹ (95% CI)	County Percent ²
Gender		
Male	42.8 (35.0, 50.6)	49.2
Female	57.2 (49.4, 65.0)	50.8
Race		
White	64.3 (52.7, 75.9)	62.8
Black or African-American	29.7 (18.2, 41.2)	31.1
Asian or Pacific-Islander	0.5 (0.0, 1.6)	1.0
American Indian or Alaskan Native	2.0 (0.0, 3.9)	3.0
Other	3.5 (0.3, 6.6)	2.0
Ethnicity		
Non-Hispanic/Latino	96.8 (92.3, 100.0)	93.7
Hispanic/Latino	2.6 (0.0, 7.0)	6.3
No Response	0.5 (0.0, 1.6)	--
Language Spoken in Home		
English	93.3 (88.4, 98.2)	93.7
Other	6.7 (1.8, 11.6)	6.1
Education⁴		
Some high school, no diploma	16.9 (10.8, 23.0)	--
High school diploma or GED	34.2 (26.2, 42.3)	--
Associate's degree or vocational training	21.4 (14.4, 28.4)	--
Some college, no degree	13.8 (8.1, 19.6)	--
Bachelor's degree	9.7 (4.4, 14.9)	--
Other	4.0 (0.9, 7.0)	--
Employment Status		
Employed full-time	24.7 (19.0, 30.4)	--
Employed part-time	8.0 (3.9, 12.0)	--
Retired	30.7 (23.8, 37.7)	--
Military	1.1 (0.0, 2.5)	--
Unemployed	11.6 (6.5, 16.7)	11.5 ³
Disabled	21.9 (15.0, 28.7)	--
Student	5.1 (2.3, 7.8)	--
Homemaker	7.1 (2.9, 11.2)	--
Self-employed	2.5 (0.0, 5.1)	--

Table 1. Demographic characteristics of survey respondents (N=196) and Richmond County.

Source: ¹ 2013 Richmond County Community Health Opinion Survey

² 2012 U.S. Census Quick Facts estimate

³ Employment Security Commission of North Carolina, April 2013

⁴ Education is reported by the U.S. Census for ages

Richmond County Community Health Opinion Survey 2013



Richmond County Community Health Opinion Survey - 2013

Hello, I am _____ and this is _____ and we are volunteers working with the Richmond County health department, hospitals and community partners. We are talking with people throughout the community today about their opinions on healthcare and other health-related issues in the County. (Show badges/CHOS flyer). All the opinions you share with us will be completely confidential and will be reported as a group summary. The results will help to address the major health and community issues in our county.

The survey is completely voluntary. It should take no longer than 20-30 minutes to complete. We are only interviewing adults 18 and older.

Are you 18 years old or older? (if “yes”)

Would you like to participate? _____ Yes _____ No

(If no, stop the survey here and thank the person for his or her time.)

Eligibility

Do you live at this address? _____ Yes _____ No

(If no, ask if you can speak with someone who lives there or ask if the person lives nearby. If no one is available, stop the survey here and thank the person for his or her time.)

Richmond County Community Health Opinion 2013 Survey and Results

Demographic Questions

1. How long have you lived in this county?

Response	Number Respondents	Weighted Percentage
Less than 1 Year	4	1.95
1-5 Years	17	8.51
6-10 Years	14	7.04
More than 10 Years	73	39.02
My Whole Life	88	43.48
No Response	0	0

- 43.4% of respondents lived in Richmond County their entire life.

2. May I ask what year were you were born?

Age distribution of survey respondents		
Age Category	Number of respondents	Weighted Percentage
18-20	9	4.82
21-30	19	9.29
31-40	26	13.46
41-50	27	13.38
51-60	36	18.19
61-70	48	24.95
71-80	19	10.79
81-90	12	5.11
Total	196	100.00

- Approximately 25% of survey respondents were age 61 or older.

3. Are you male or female?

Gender	Percentage
Male	42.8
Female	57.2

- Females comprised 57.2% of the survey respondents.

4. Are you of Hispanic origin?

Response	Number of respondents	Weighted Percentage
Non-Hispanic	189	96.83
Hispanic	5	2.65
No Response	1	0.53

5. What is your race?

Race or Ethnicity	Number of respondents	Percentage
Black or African American	56	29.70
American Indian/ Alaskan Native	4	1.99
White/Caucasian	124	64.30
Asian or Pacific	1	0.53
Other: Biracial: White and African; Biracial: Unspecific; Arabic; Hispanic; No Response	8	3.48

- Minorities comprised 32.2 % of the survey respondents.
- "Other" category consisted of respondents who did not specify in what way they fell into the given options.

6. A. Do you speak a language other than English at home?

Response	Number of respondents	Percentage
Yes	13	6.71
No	183	93.29

B. If yes, what language do you speak at home?

Other languages spoken at home among survey respondents	
Arabic	1
Filipino	1
French	2
German	7
Spanish	7
No Response	1

- 93% of respondents speak English at home.

7. What is the highest level of school, college, or vocational training that you have finished?

Education Level	Number of respondents	Weighted Percentage
Some high school, no diploma	32	16.86
High school diploma or GED	69	34.25
Associate's Degree or Vocational Training	42	21.40
Some College (no degree)	27	13.84
Bachelor's degree	17	9.68
Other	8	3.97

- 34% of respondents had a high school diploma or GED.
- Over 9% of respondents earned a college degree or graduate degree.

8. Including yourself, how many people live in your household?

Number of people living in the household	Number of respondents	Weighted Percentage
1	48	24.58
2	58	28.94
3	36	18.42
4	28	14.15
5	15	8.21
6	7	3.68
7	2	0.96
8	1	0.53
12	1	0.53

- The highest percentage (28.94%) of respondents answering this question has two people living in the household.
- Most respondents have between one and four people living in the household.

9. Is your annual household income GREATER than \$XX,XXX before taxes?

Response	Number of respondents	Weighted Percentage
Income is at or below poverty threshold	114	57.71
Income is above poverty threshold	64	34.89
Don't know, not sure	7	3.18
No Response	9	4.22

- 57% of respondent's income is at or below the poverty threshold.

10. What is your employment status?

Employment Status	Number of respondents	Weighted Percentage
Employed Full-Time	48	24.68
Employed Part-Time	15	7.96
Retired	59	30.75
Unemployed	23	11.62
Military	2	1.05
Disabled	44	21.87
Student	11	5.09
Homemaker	14	7.06
Self-employed	5	2.48

- 24% of respondents were employed full-time.
- 30% of respondents were retired, 11% were unemployed, and 21% were disabled.

11. Do you have access to the Internet?

Response	Number of respondents	Weighted Percentage
No	57	28.78
Yes	138	70.70
No Response	1	0.53

- The majority of respondents had access to the internet.

12. How many hours per day do you use the computer?

Response	Number of respondents	Weighted Percentage
0-1 hour	123	63.14
2-3 hours	45	22.60
4-5 hours	12	6.30
6 or more hours	10	5.26
No Response	6	2.63

- 5% of respondents use the computer more than 6 hours a day.

13. Are you a member of a faith organization?

Response	Number of respondents	Weighted Percentage
No	59	30.21
Yes	136	69.26
No Response	1	0.53

- 69% of the respondents are members of a faith organization.

14. Thinking about your community, what kind of place is it to live?

Response	Number of respondents	Weighted Percentage
Excellent	50	25.77
Good	90	44.26
Fair	44	23.40
Poor	11	6.05
No Response	1	0.53

- Over 50% of respondents either responded that their community is an excellent or good place to live.



15. Survey participants were presented an alphabetized list of 26 health and environmental health issues and asked to select the five they thought had the largest impact on the community as a whole. They also had the option of adding a topic of their choice as one of the five. Some respondents selected more than five, some fewer, and a few skipped the section completely.

Ranking of Health and Environmental Health Issues in Richmond County

Problems	Number of Responses	Percent of Health Response
1. Adult Dental Health	16	8.00
2. Aging Problems	54	27.92
3. Asthma	28	14.06
4. Autism	7	3.40
5. Birth Defects	8	3.97
6. Cancer	109	56.54
7. Child Dental Health	15	8.18
8. Diabetes	103	51.78
9. Gun-Related Injuries	19	10.00
10. Heart Disease/ Heart Attacks	78	40.64
11. High Blood Pressure	34	18.71
12. HIV/AIDS	23	11.95
13. Infant Death	6	3.01
14. Infectious, Contagious Disease	8	3.82
15. Kidney Disease	21	10.26
16. Liver Disease	11	6.32
17. Lung Disease	19	10.00
18. Mental Health	42	22.28
19. Motor Vehicle Accidents	31	15.85
20. Neurological Disorder	6	3.00
21. Obesity/ Overweight	70	36.55
22. Other injuries	6	3.13
23. Sexually Transmitted Diseases	17	8.40
24. Stroke	23	11.71
25. Teenage Pregnancy	48	23.66
26. Other	10	5.61

Types of cancer named with noteworthy numbers indicated: all kinds (31), lung (18), breast (13), and pancreas (7). "Other" write-in responses included: litter, wells, drugs, and lack of doctor.

- The top five health and environmental health issues that the respondents felt had the largest impact on community as a whole were: Cancer (56%), Diabetes (51%), Heart Disease/Heart Attacks (40%), Obesity/Overweight (66%), and Aging Problems (27%).
- These results show that health education is needed within the community. Some of the proven top health issues impacting the community were not included in the respondents top five selection.

Unhealthy Behaviors

16. Survey participants were presented a list of unhealthy behaviors and asked to select the five they thought had the greatest overall impact on health in Richmond County. Some respondents selected more than five, some fewer. A few skipped the section entirely.

Ranking of Unhealthy Behaviors in Richmond County

Unhealthy Behaviors	Number of respondents	Weighted Percentage
1. Alcohol Abuse	126	65.47
2. Drunk Driving	72	36.04
3. Having Unsafe Sex	58	28.78
4. Illegal Drug Abuse	138	71.23
5. Lack of Exercise	71	36.68
6. Not Getting Immunizations	7	3.67
7. Not Getting Prenatal	5	2.61
8. Not Going to Dentist	20	11.56
9. Not Going to The Doctor	8	4.08
10. Not Using Child Safety Seats	7	3.60
11. Not Using Seats Belts	27	14.69
12. Not Washing Hands	17	8.44
13. Poor Eating Habit	43	20.35
14. Prescription Drug Abuse	67	35.57
15. Reckless/Distracted Driving	43	22.26
16. Smoking/Tobacco Use	81	38.66
17. Suicide	14	7.21
18. Violent Behavior	37	19.87
19. Other	2	1.05

- 71% of respondents felt that Illegal Drug Abuse had one of the greatest impacts on health in Richmond County.
- This response actually reflects current statics. Prescription drug abuse is one of the leading issues in Richmond County.

Community Issues

17. Survey participants were presented a list of community-wide issues that have the largest impact on the overall quality of life in Richmond County. They were asked to select the five they thought had the greatest overall impact; also, they had the option of writing-in a topic of their choice as one of the five. Some respondents selected more than five, some fewer. A few skipped the section entirely.

Ranking of Community Issues in Richmond County

Community-Wide Issues	Number of Respondents	Weighted Percent
Affordability of health services	43	21.89
Animal control issues	52	26.65
Availability of child care	12	6.02
Availability of healthy family activities	11	6.58
Availability of healthy food choices	13	6.25
Availability of positive teen activities	33	16.95
Bioterrorism	3	1.58
Domestic violence	52	25.87
Dropping out of school	80	41.22
Gang issues	13	6.89
Homelessness	58	29.52
Inadequate/unaffordable housing	20	10.30
Lack of culturally appropriate health services	7	3.64
Lack of health care providers	16	7.57
Lack of law enforcement	9	4.16
Lack of recreational facilities	23	12.53
Lack of transportation options	11	5.41
Lack of/inadequate health insurance	51	25.25
Literacy	19	8.90
Low income/poverty	64	33.86
Neglect and abuse	16	8.58
Pollution	7	3.42
Racism	14	7.02
Rape/sexual assault	6	3.51
Secondhand smoke	21	10.10
Unemployment	80	42.12
Unhealthy/unsafe home conditions	14	8.51
Unsafe/unmaintained roads	7	3.27
Violent crime	25	12.61
Work safety	5	2.63
Youth crime	37	18.87
Other	3	1.58

Personal Health

18. Where do you get most of you health-related information?

Source of Health Information	Number of respondents	Weighted Percentage
Books/magazines	7	3.8564
Church	0	0
Doctor/nurse/pharmacist	109	55.8378
Free Care Clinic	2	1.0638
Friends and family	13	6.8021
Health Department	9	4.6986
Help lines (telephone)	0	0
Hospital	7	3.5662
Internet	26	13.9104
Newspaper	5	2.2416
School	1	0.266
Social media	0	0
Television	8	3.9007
Other - Workplace	2	1.0638
Other - Mail	1	0.5319
Other - Newsletter	1	0.5319
Other - Personal Experience	1	0.6649
Other - Unspecified	1	0.5319
No Response	1	0.5319

- 55% of respondents get health-related information from Doctor/nurse/pharmacist.

19. Where do you go most often when you are sick or need advice about your health?

Response	Number of respondents	Weighted Percentage
Doctor's office/medical clinic	139	71.0993
Free Care Clinic	2	1.0526
Health Department	6	3.1579
Hospital/Emergency Room	37	18.486
Urgent care center	1	0.5263
Veterans Administration Clinic	7	3.3094
Other - AARP	1	0.5263
Other - Family	2	1.3158
Other - Pharmacy	1	0.5263

- Approximately 18% of respondents go to the Hospital/Emergency Room (ER) most often when sick or need health advice. This was the second highest response. Efforts are being put into place to lower the rate of Hospital/ ER visits.

20. Are you covered by a health insurance plan?

Response	Number of respondents	Weighted Percentage
No	39	19.427
Yes	157	80.573

-If yes, what type of coverage do you have?

Response	Number of respondents	Weighted Percentage
Medicare	48	30.5343
Medicaid	26	16.7114
Private Insurance	71	46.1182
Tricare/VA	10	5.3296
Other - AARP	1	0.5263
Other - Family	2	1.3158
Other - Pharmacy	1	0.5263

-If yes, are there any concerns you have about your health care coverage?

Response	Number of respondents	Weighted Percentage
No	168	85.569
Yes	28	14.431

21. In the past 12 months, did you ever have a problem getting the health care you needed from any type of health care provider or facility?

Response	Number of respondents	Weight Percentage
None	86	56.1407
High deductibles	28	16.7926
High copays	20	12.2301
High prescription costs	13	7.5805
Other cost issues (premiums, etc.)	4	2.4337
Other - Retention	1	0.6490
Other - Insurance company may cut services	1	0.6490
Other - Out of network providers	1	0.6490
Other - Unspecified	5	2.9204
No Response	1	0.6490

- 22. Survey participants were asked if he/she had a problem or if he/she was to have a problem indicate on the list below their challenge(s). They were asked to select as many of the challenges as they needed. Also, they had the option of writing-in a topic of their choice if it was not present.**

Response	Number of respondents	Weight Percent
No insurance	9	32.1429
Insurance wouldn't pay	10	35.7143
My cost was too high (deductible/co-pay)	4	14.2857
Provider didn't accept my insurance	1	3.5714
Couldn't afford cost	11	39.2857
No transportation	2	7.1429
Didn't know where to go	1	3.5714
Couldn't get an appoint	3	10.7143
Other - Diagnosis issues (none or incorrect)	2	7.1429
Other - Overdue bill	1	3.5714
Other - Poor quality doctor	1	3.5714

- The majority of respondents (39%) had challenges with getting health care because of cost.

- 23. Please identify which county you seek routine health care in most often?**

Response	Number of respondents	Weighted Percentage
Cumberland	3	1.3158
Hoke	1	0.2392
Montgomery	0	0
Moore	47	23.8517
Randolph	0	0
Richmond	133	68.077
Scotland	2	1.4035
Stanly	1	0.5263
Other - Burke	1	0.5263
Other - Orange	3	1.4286
Other - Durham	1	0.5263
Other - Rowan	1	0.5263
Other - Wake	1	0.5263
Other - Watauga	1	0.5263
None - South Carolina	1	0.5263

- 68% of respondents seek routine health care in Richmond County.

24. In the past 12 months, did you have a problem filling a medically necessary prescription?

Respond	Number of respondents	Weighted Percentage
No	169	85.3497
Yes	27	14.6503

25. Since you said “yes,” which of these problems did you have? Choose as many of these as you need to. If there was a problem you had that we do not have here, please tell us.

Response	Number of respondents	Weighted Percentage
No health insurance	8	29.6296
Insurance didn't cover what I needed	10	37.037
Cost was too high	8	29.6296
Pharmacy would not accept insurance	1	3.7037
Other - Timing issues	1	3.7037
Other - Not available / short supply	2	7.4074
Other - Need approval	1	0.5102
Other - Not ready	1	3.7037

26. If a friend or family member needed counseling for a mental health or a drug/alcohol abuse problem, who would you tell them to call or talk to?

Response	Number of respondents	Weighted Percentage
Private counselor	52	27.2141
Support group	25	13.6603
School counselor	4	2.1053
Don't know	38	18.1938
Doctor	42	21.027
Spiritual leader	33	16.7231
Other - 911 / Police	2	1.0526
Other - Daymark	1	0.5263
Other - DSS	1	0.5263
Other - EAP	1	0.5263
Other - Family or friends	2	1.0526
Other - Health Department	3	1.1654
Other - Hospital	2	1.0526
Other - SSX	1	0.5263
Other - Unspecified	6	3.6842

- The majority of respondents (27%) would refer a friend or family member to a private counselor if the individual needed counseling for mental health or a drug/alcohol abuse problem.

27. During a normal week, do you engage in any exercise activity that lasts at least a half an hour?

Response	Number of respondents	Weighted Percentage
No	61	31.6063
Yes	135	68.3937

28. Since you said yes, how many times would you say you engage in this activity during a normal week?

Response	Number of respondents	Weighted Percentage
1-2 times / week	18	12.6641
3-4 times / week	63	47.1167
5-6 times / week	28	19.918
7+ times / week	25	19.5316
No response	1	0.7695

29. Where do you go to exercise or engage in physical activity?

Response	Number of respondents	Weighted Percentage
Park	13	9.7125
Public recreation center	4	2.8583
Gym	20	15.9679
Greenway trails	4	3.0782
Home	99	71.9085
Senior center	1	0.7695
No response	1	0.7695
Other - Church	1	0.7695
Other - Cemetery	1	0.7695
Other - Farm	1	0.3498
Other - Friend's home	1	0.7695
Other - Golf course	1	0.5497
Other - Job	8	6.3487
Other - Retail store	1	0.7695
Other - Unspecified	1	0.7695

- 30. Since you said “no,” what are the reasons you do not exercise for at least a half an hour during a normal week? You can give as many of these reasons as you need to.**

Response	Number of respondents	Weighted Percentage
Job is physical / labor	3	4.918
Exercise isn't important to me	1	1.6393
No access to a facility	3	4.918
Not enough time	13	21.3115
Don't like to exercise	11	18.0328
Too expensive	0	0
Too tired	7	11.4754
Physically disabled	24	39.3443
Other - Unspecified	1	1.6393
Other - Lazy	2	3.2787
Other - Lack motivation	1	1.6393
Other - Pain	1	1.6393

- 31. How many hours per day do you watch TV, play video games, or use the computer for recreation?**

Response	Number of respondents	Weighted Percentage
0-1 hours	41	20.184
2-3 hours	71	35.4916
4-5 hours	42	22.3069
6+ hours	42	22.0175

- 32. If you had access to a community garden, would you utilize it?**

Response	Number of respondents	Weighted Percentage
No	69	33.4883
Yes	126	65.9854
No Response	1	0.5263

- 33. Are you exposed to secondhand smoke in any of the following places?**

Response	Number of respondents	Weighted Percentage
Home	53	25.7775
Work	8	4.1866
Church	3	1.5789
Automobile	30	15.0837
Not exposed	123	64.071
No response	4	2.1053
Other - Doctor's office	1	0.5263
Other - Family / friend homes	2	1.0526
Other - School	1	0.2632
Other - Stores	2	1.0526
Other - Unspecified	5	2.0574

34. Do you currently smoke?

Response	Number of respondents	Weighted Percentage
No	132	68.0958
Yes	64	31.9042

-Do you currently use other tobacco products?

Response	Number of respondents	Weighted Percentage
No	179	92.8496
Yes	13	6.6156
No response	1	0.5348

35. If yes, where would you go for help if you wanted to quit?

Response	Number of respondents	Weighted Percentage
Quit Now NC	4	5.4054
Doctor	22	29.7297
Church	4	5.4054
Pharmacy	5	6.7568
Private counselor / therapist	0	0
Health Department	3	4.0541
Hospital	4	5.4054
Don't know	14	18.9189
Not applicable / don't want to quit	12	16.2162
Other - Self	6	8.1081
Other - Family or friends	3	4.0541
Other - Electronic cigarette	1	1.3514
Other - Work	1	1.3514
Other - Unspecified	1	1.3514

36. Have you ever been told by a doctor, nurse, or other health professional that you have any of the conditions I am about to read?

Response	Number of respondents	Weighted Percentage
Asthma (N=187)	34	18.2123
Depression (N=188)	54	27.7455
High blood pressure (N=194)	94	46.921
High cholesterol (N=188)	67	34.3912
Diabetes (N=190)	38	19.0059
Osteoporosis (N=188)	20	10.2522
Obesity (N=191)	69	34.8684

37. Do you have children between the ages of 9 and 19?

Response	Number of respondents	Weighted Percentage
No	146	74.9288
Yes	50	25.0712

38. Would you be interested in allowing your child to walk to school if there was a safe route?

Response	Number of respondents	Weighted Percentage
No	23	46.000
Yes	23	46.000
No response	4	8.000

39. Do you think your child is engaging in any of the following high risk behaviors I am about to read.

Response	Number of respondents	Weighted Percentage
Alcohol use	5	10.000
Eating disorders	3	6.000
Drug abuse	1	2.000
Tobacco use	7	14.000
Sexual activity	10	20.000
Distracted driving / speeding	5	10.000
Gangs	1	2.000
Criminal activities	1	2.000
Skipping school	3	6.000
Child not engaging in risky behaviors	27	54.000

40. Are you comfortable talking to your child about the risky behaviors we just asked about?

Response	Number of respondents	Weighted Percentage
No	0	0.000
Yes	49	97.901
No Response	1	2.099

41. Do you think your child or children need more information about the following problems:

Response	Number of respondents	Weighted Percentage
Alcohol use	17	34.0000
Eating disorders	17	34.0000
Drug abuse	16	32.0000
Tobacco use	17	34.0000
Sexual activity	18	36.0000
Distracted driving / speeding	18	36.0000
Mental health / suicide	15	30.0000
HIV	17	34.0000
STDs	18	36.0000
Internet safety	19	38.0000
Birth control	18	36.0000
Dating violence	16	32.0000
Other - Bullying	1	2.0000
Other - None currently (too young)	2	4.0000

42. Does your household have working smoke and carbon monoxide detectors?

Response	Number of respondents	Weighted Percentage
Smoke detector only	91	45.9552
Carbon monoxide detector only	4	1.9737
Smoke and carbon monoxide detectors	80	41.1688
None	20	10.0251
No response	1	0.8772

43. Does your household have a Family Emergency Plan?

Response	Number of respondents	Weighted Percentage
No	89	44.5318
Yes	106	54.8103
Don't know	1	0.6579

44. Does your family have a basic emergency supply kit? If yes, how many days do you have supplies for?

Response	Number of respondents	Weighted Percentage
None	117	58.0668
3 days	27	13.9297
1 week	23	11.9549
2 weeks	11	6.4474
more than 2 weeks	18	9.6013

45. Is there anyone living in your home that would require special assistance during an emergency?

Response	Number of respondents	Weighted Percentage
No	158	81.7729
Yes	35	17.1689
Don't know	2	1.0582

Fun Facts About North Carolina

2012 Information on North Carolina

- ***Did you know on a typical day in North Carolina...***

Things that occur on a typical day	Number of occurrences
Live Births	328
Birth to teens (15-19)	28
Deaths	224
Cancer Deaths	50
Infant Deaths	2
Unintentional Deaths	12

Source: (North Carolina vital facts, 2012)

- ***Who Knew...***

Youngest Mother	10
Oldest Mother	55
Youngest Father	14
Oldest Father	80
Sets of Twins	2,002
Sets of Triplets	37
Sets of Quadruplets	1
Sets of Quintuplets	1

Source: (North Carolina vital facts, 2012)

- ***What do you know about birthdays?***

-Most births occurred on October 11, 2012 with 434 births

-Fewest births occurred on April 29, 2012 with 186 births.

-Day of week most births occurred was Thursday with 19,449 births.

-Largest live birth 13lbs 5oz.

- ***Top five baby names***

Rank	Boys' names	Number	Rank	Girls' Names	Number
1	William	697	1	Emma	642
2	Mason	668	2	Sophia	586
3	Elijah	570	3	Ava	492
4	Jacob	569	4	Olivia	464
5	Noah	525	5	Madison	442

Source: (North Carolina vital facts, 2012)

Presentation

A presentation of The 2013 Community Health Assessment will be made to the following: Richmond County Board of Health, Richmond County Board of Commissioners, Rockingham City Council, Hamlet City Council, Town Council of Dobbins Heights, Town Council of Ellerbe, Town Council of Norman, and Town Council of Hoffman. The public can access the information from the report at the Richmond Community College Library, the Thomas H. Leath Memorial Library, the Kemp Memorial Library, the Hamlet Public Library, and at the Richmond County Health Department website.

Richmond County Health Department

127 Caroline Street

Rockingham, North Carolina

910-997-8300

<http://publichealth.southernregionalahec.org/Richmond/>

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